

Test Report

Applicant: Qingdao Geoid Intelligence Technology Co., Ltd.

Product Name: Smart Trainer

Product Model: VE300

Brand Name: GEOID

Date of Issue: 2026-03-18

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RF TEST REPORT

According to

**MIC public notice 88:2004, annex 43 and annex 1, Article 2,
Paragraph 1, Item 19**

Applicant:	Qingdao Geoid Intelligence Technology Co., Ltd.
Address:	No. 201-8, Building 3, No. 168 Tianfeng South Road, Qingdao, China
Manufacturer:	Qingdao Geoid Intelligence Technology Co., Ltd.
Address:	No. 201-8, Building 3, No. 168 Tianfeng South Road, Qingdao, China
Factory:	OINGDAO MAGENE INTELLIGENCE TECHNOLOGY CO.. LTD.
Address:	No.126 Shuyu Road, Chengyang District, Qingdao, Shandong, China.
Sample No:	1000074570
Product Name:	Smart Trainer
Brand Name:	GEOID
Product Model:	VE300
Test No.:	VE300

Date of Receipt:	2026-02-05
Date of Test:	2026-02-05 ~ 2026-03-17
Issued Date:	2026-03-18
Testing Lab:	TIRT

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- 3, This document may be altered or revised by Beijing TIRT Technology Service Co.,Ltd Shenzhen branch laboratory Personnel only, and shall be noted in the revision section of the document. The test results of this report relate only to the tested sample identified in this report.

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History of the test report

Report No.	Version	Description	Issued Date	Note
ITEZA2-202600043RF2	V1.0	Original Report.	2026-03-18	Valid



1. General Information

1.1. Description of Device (EUT)

EUT	: Smart Trainer
Model No.	: VE300
Power supply	: DC 3.3V from host unit
Radio Technology	: Bluetooth V5.0
Number of channels	: 40
Operation frequency BLE	: 2402MHz -2480MHz
Data Rate	: 1Mbps, 2Mbps,
Modulation	: GFSK
Stated power	: 2mW
Antenna Type	: PCB Antenna, max gain -0.43dBi Antenna information is provided by applicant. Testing lab is not responsible for the accuracy of the information.
Software Version	: V1.703
Hardware version	: V1.0

1.2. Accessories of Device (EUT)

Accessories : /
Manufacturer : /
Model : /
Ratings : /

1.3. Ancillary Equipment Details

No.	Description	Manufacturer	Model	Note
1	PC	DELL	3511	N/A

1.4. Additions, Deviations and Exclusions from Standards

None

1.5. Model differences

N/A



2. Summary of test

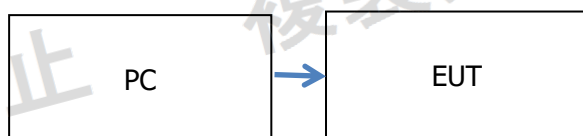
2.1. Summary of test result

CLAUSE	TEST PARAMETER	RESULTS
Transmitter Parameters		
3.2 (2)	Antenna Power	Pass
3.2 (3)	Tolerances for Antenna Power	Pass
3.2 (4)	Frequency Tolerance	Pass
3.2 (7)	Occupied Frequency Bandwidth	Pass
3.2 (6)	Spurious Emissions	Pass
/	Equivalent Isotropic Radiated Power	Pass
/	3dB Beam Bandwidth	N/A
/	Interference prevention function	Pass
Receiver Parameters		
3.3 (1)	Secondary Radiated Emissions	Pass
N/A is an abbreviation for Not Applicable.		

2.2. The standard of Calibration Equipment

- Calibration conducted by the National institute of information and Communications Technology NICT or a designated calibration agency under Article 102-18 paragraph.
 - Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992).
 - Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph.
 - Calibration, etc. conducted by using measuring instruments and other equipment listed in the right column of appended table No. 3, which shall have been given any type of calibration, etc. listed above from (a) to.
- The all calibration corresponds to c) described above.

2.3. Block Diagram



2.4. Test mode

The test software is used to control the operation of the EUT in the continuous transmission mode, and select the test channel and wireless mode:

Mode	Data rate	Channel	Frequency(MHz)
Carrier Tx Mode	1Mbps, 2Mbps,	CH0	2402
		CH19	2440
		CH39	2480
GFSK Rx Mode		CH0	2402
		CH19	2440
		CH39	2480
GFSK Rx Tx Mode			

2.5. Test Conditions

Temperature range	5-35℃
Humidity range	45-85%
Pressure range	86-106kPa

2.6. Test Voltage

Voltage mode	Input Voltage	Radio Unit Voltage
DC	DC 3.2V	DC 3.3V
	DC 3.3V	DC 3.3V
	DC 3.6V	DC 3.3V

Note: 1 The radio unit Voltage with the IC regulator.
2 The radio unit less than 1%, so the test only rated voltage (Normal voltage DC 3.3V).

2.7. Measurement Uncertainty (95% confidence levels, k=2)

Item	MU
Frequency Error	±1.9%
Antenna Power	±0.743dB
Occupied Bandwidth	±0.0196%
Spread Bandwidth	±0.0196%
Transmitter Spurious Emission Strength and Unwanted Emission Intensity	30MHz-1GHz:±0.746dB 1GHz-13GHz: ±1.328dB
Receiver Spurious Emission and Unwanted Emission Intensity	30MHz-1GHz:±0.746dB 1GHz-26GHz: ±1.328dB
Dwell Time	±0.028%
Frequency Error	±1.9%

3. Antenna Power

3.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Calibration	Due Calibration
1	Spectrum analyzer	Agilent	N9020A	MY54488989	2025/11/10	2026/11/09
2	Spectrum analyzer	ROHDE&SCHWARZ	FSU26	200732	2025/11/10	2026/11/09
3	Attenuator	SCHWARZBECK	DGA 9552N	3161	2025/10/17	2026/10/16
4	Automatic RF control unit	Tonscend	JS0806-1	19K8060206	2025/11/12	2026/11/11

Note: The test equipment is calibrated by Huajue Medical Testing and Metrology (Shenzhen) Co., Ltd. Calibration standard: Article 24-2, Paragraph 4 of the Radio Act, method c

3.2. Limit

Limit	10mW or less
Tolerance	+20%, No Low Limit

3.3. Block diagram of test setup



3.4. Test Procedure

- (1) Configure EUT and assistant system according clause 2.3 and 3.3
- (2) Set EUT work in test mode as described in clause 2.4
- (3) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:
 - Centre Frequency: The centre frequency of the channel under test.
 - Resolution BW: 1 MHz.
 - Video BW: 1 MHz.
 - Span: Wide enough to cover the complete power envelope of the signal of the EUT.
 - Detector: Peak.
 - Trace Mode: Max Hold.
- (4)When the trace is complete, find the peak value of the power envelope and record.

3.5. Test result

Antenna Power

Condition	Mode	Frequency (MHz)	Antenna	Power (dBm)	Antenna Power (mW)	Limit (mW)	Declared Power (mW)	Tolerance (%)	Upper Limit (%)	Verdict
NVNT	BLE 1M	2402	Ant1	1.11	1.29	10	2	-35.50	20	PASS
NVNT	BLE 1M	2440	Ant1	1.42	1.39	10	2	-30.50	20	PASS
NVNT	BLE 1M	2480	Ant1	0.61	1.15	10	2	-42.50	20	PASS
NVNT	BLE 2M	2402	Ant1	0.73	1.18	10	2	-41.00	20	PASS
NVNT	BLE 2M	2440	Ant1	1.13	1.30	10	2	-35.00	20	PASS
NVNT	BLE 2M	2480	Ant1	0.41	1.10	10	2	-45.00	20	PASS



4. Frequency Tolerance

4.1. Test Equipment

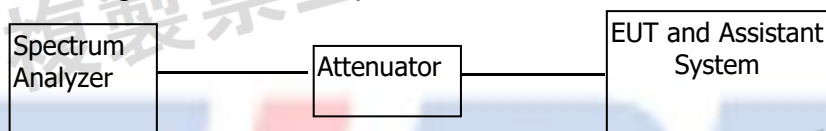
Item	Type	Manufacturer	Model No.	Serial No.	Last Calibration	Due Calibration
1	Spectrum analyzer	Agilent	N9020A	MY54488989	2025/11/10	2026/11/09
2	Spectrum analyzer	ROHDE&SCHWARZ	FSU26	200732	2025/11/10	2026/11/09
3	Attenuator	SCHWARZBECK	DGA 9552N	3161	2025/10/17	2026/10/16

Note: The test equipment is calibrated by Huajue Medical Testing and Metrology (Shenzhen) Co., Ltd. Calibration standard: Article 24-2, Paragraph 4 of the Radio Act, method c

4.2. Limit

+/- 50x 10⁻⁶ or less(50ppm)

4.3. Block diagram of test setup



4.4. Test Procedure

- (1) Configure EUT and assistant system according clause 2.3 and 4.3
- (2) Set EUT work in carrier Tx mode as described in clause 2.4
- (3) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:

Centre Frequency: The centre frequency of the channel under test.

Resolution BW: 10 KHz.

Video BW: 10 KHz.

Span: 1MHz.

Detector: Peak.

Trace Mode: Max Hold.

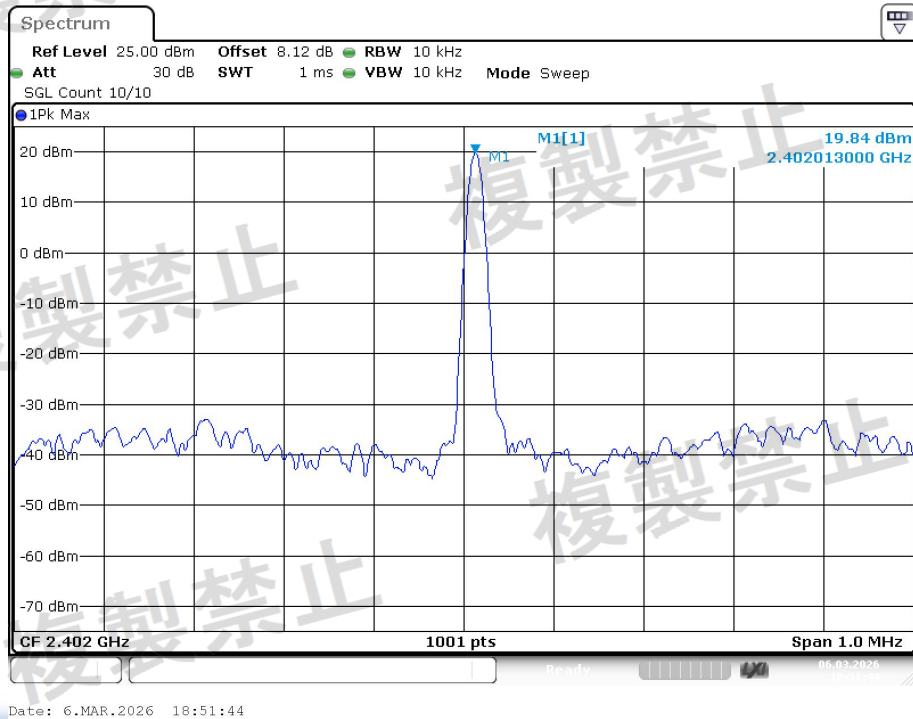
- (4)When the trace is complete, find the peak value of the power envelope and record the frequency.

4.5. Test result

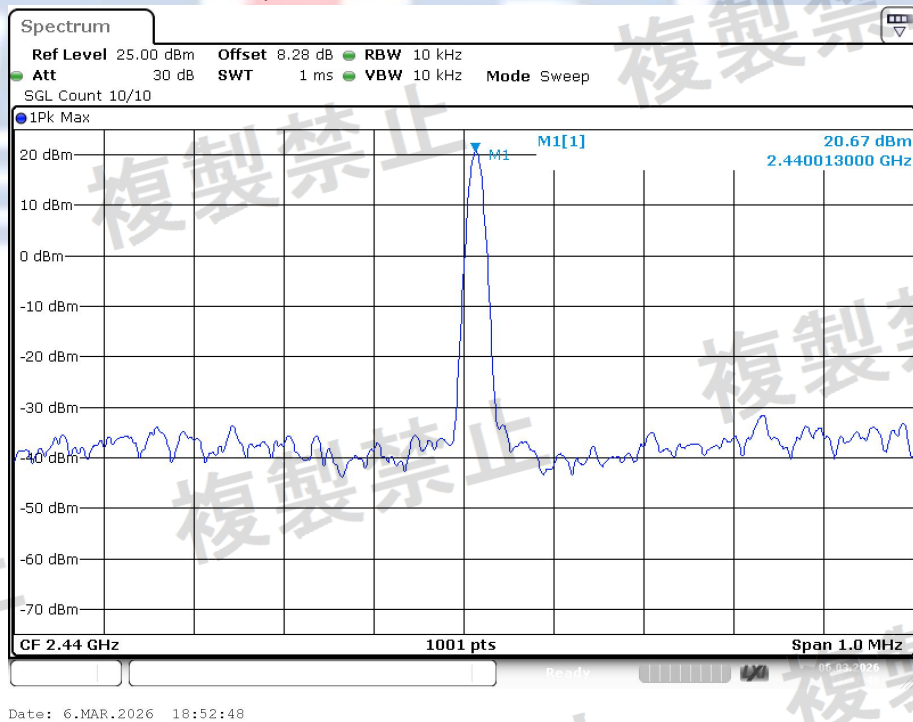
Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	BLE 1M	2402	Ant1	2402.013	5.412	50	Pass
NVNT	BLE 1M	2440	Ant1	2440.013	5.328	50	Pass
NVNT	BLE 1M	2480	Ant1	2480.014	5.645	50	Pass
NVNT	BLE 2M	2402	Ant1	2402.014	5.828	50	Pass
NVNT	BLE 2M	2440	Ant1	2440.014	5.738	50	Pass
NVNT	BLE 2M	2480	Ant1	2480.015	6.048	50	Pass



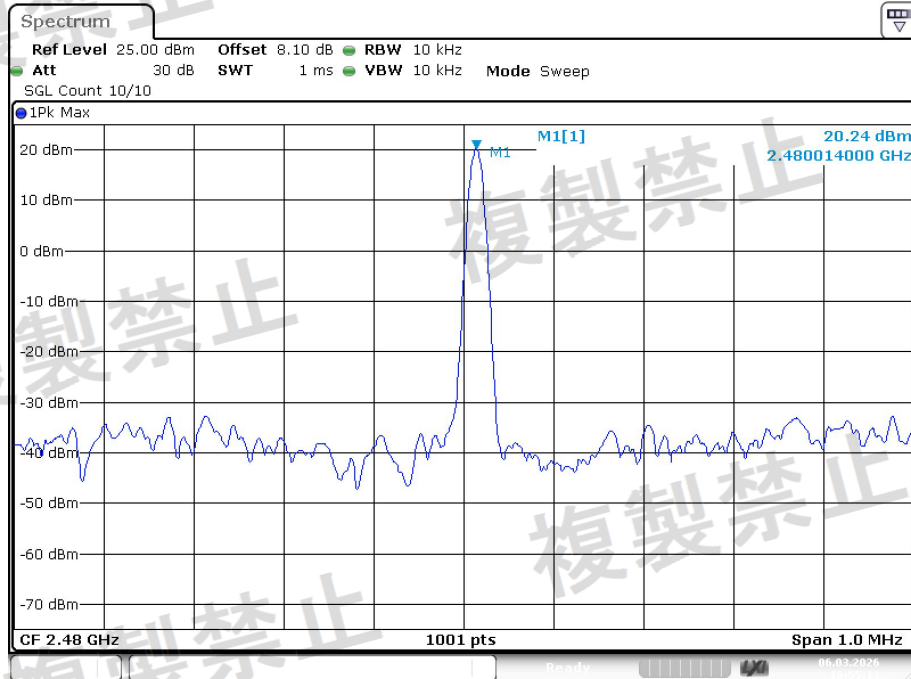
Freq. Error NVNT BLE 1M 2402MHz Ant1



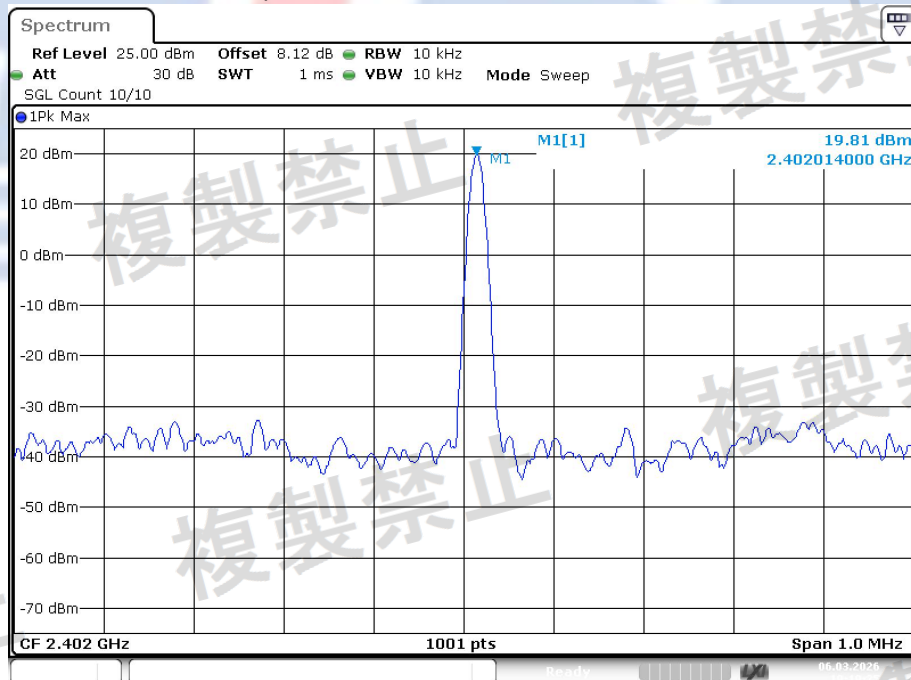
Freq. Error NVNT BLE 1M 2440MHz Ant1



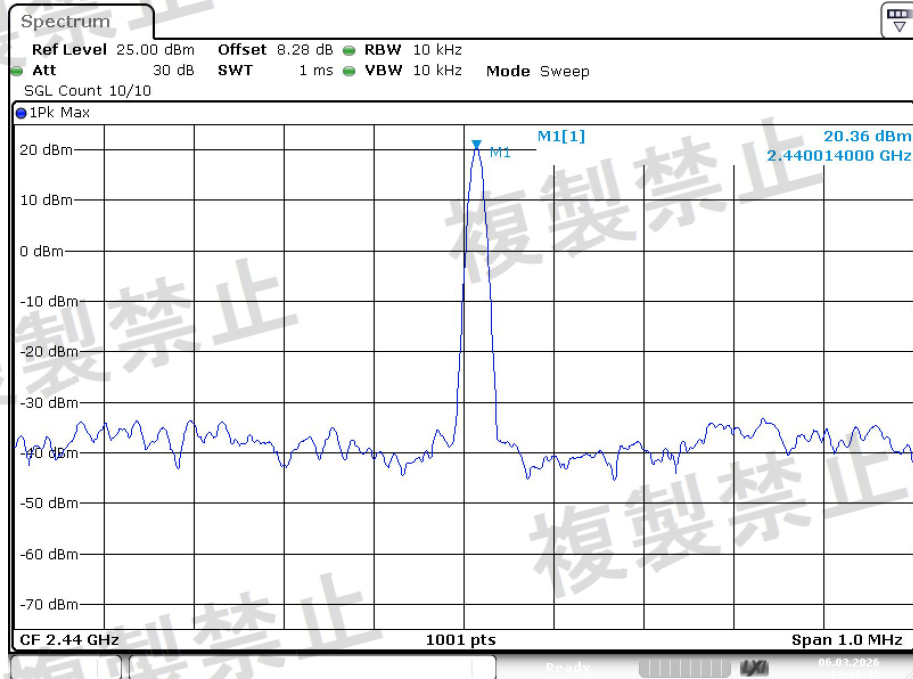
Freq. Error NVNT BLE 1M 2480MHz Ant1



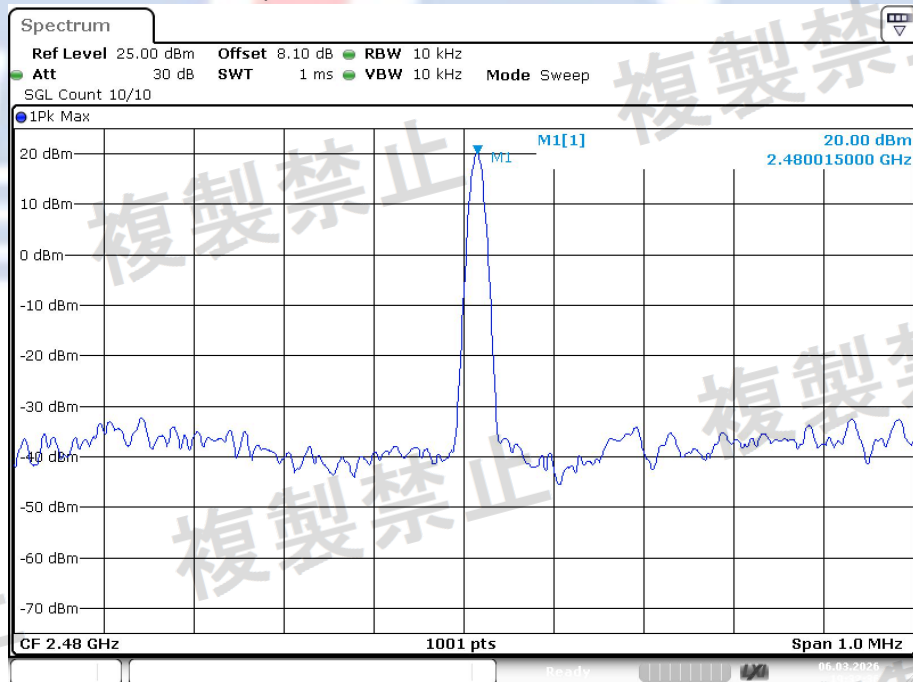
Freq. Error NVNT BLE 2M 2402MHz Ant1



Freq. Error NVNT BLE 2M 2440MHz Ant1



Freq. Error NVNT BLE 2M 2480MHz Ant1



5. Occupied Frequency Bandwidth

5.1. Test Equipment

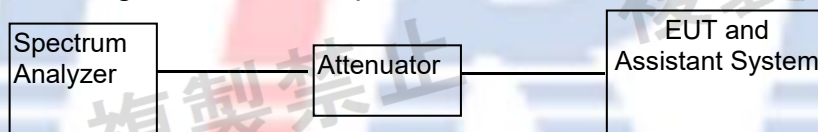
Item	Type	Manufacturer	Model No.	Serial No.	Last Calibration	Due Calibration
1	Spectrum analyzer	Agilent	N9020A	MY54488989	2025/11/10	2026/11/09
2	Spectrum analyzer	ROHDE&SCHWARZ	FSU26	200732	2025/11/10	2026/11/09
3	Attenuator	SCHWARZBECK	DGA 9552N	3161	2025/10/17	2026/10/16

Note: The test equipment is calibrated by Huajue Medical Testing and Metrology (Shenzhen) Co., Ltd. Calibration standard: Article 24-2, Paragraph 4 of the Radio Act, method c

5.2. Limit

Permissible value for occupied bandwidth using the FH system, a hybrid system combining DS and FH systems, or a hybrid system combining FH and OFDM systems shall be 83.5 MHz or less, while necessary bandwidth (minimum occupied bandwidth sufficient to ensure information transmission of required quality at a required transmission rate for the system used under specified conditions for a given emission type) using a system other than any of the above shall be 26 MHz or less.

5.3. Block diagram of test setup



5.4. Test Procedure

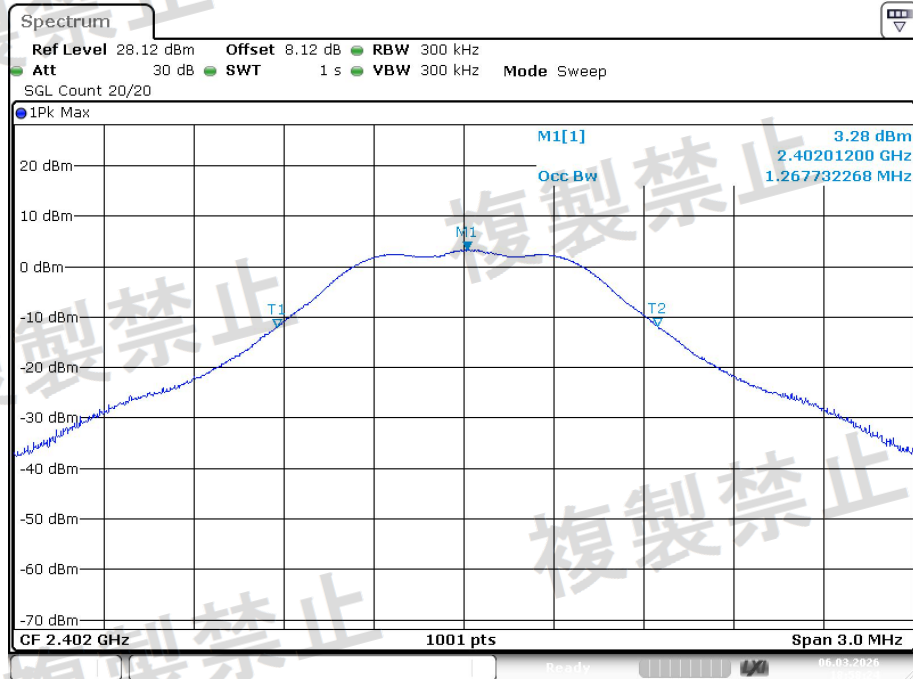
- (1) Configure EUT and assistant system according clause 2.3 and 5.3
- (2) Set EUT work in test mode as described in clause 2.4
- (3) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:
 - Centre Frequency: The centre frequency of the channel under test.
 - Resolution BW: 300 KHz
 - Video BW: 300 KHz
 - Span: Wide enough to cover the complete power envelope of the signal of the EUT.
 - Detector: Peak.
 - Trace Mode: Max Hold.
- (4) When the trace is complete, measure the occupied bandwidth (99% bandwidth) with spectrum analyzer's bandwidth measure function.

5.5. Test result

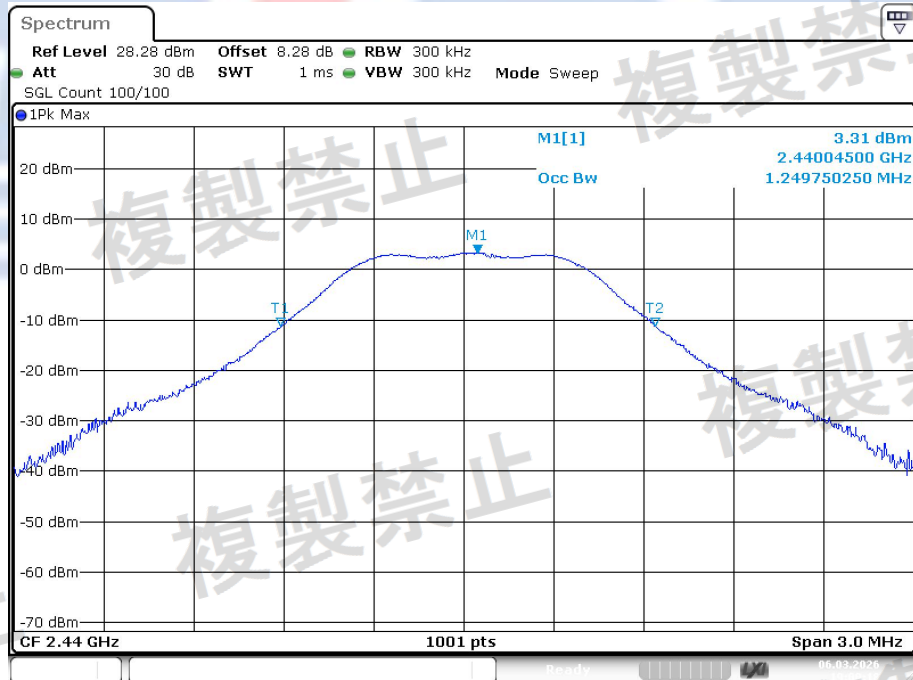
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)	Limit(MHz)
NVNT	BLE 1M	2402	Ant1	1.27	26
NVNT	BLE 1M	2440	Ant1	1.25	26
NVNT	BLE 1M	2480	Ant1	1.25	26
NVNT	BLE 2M	2402	Ant1	2.19	26
NVNT	BLE 2M	2440	Ant1	2.19	26
NVNT	BLE 2M	2480	Ant1	2.19	26



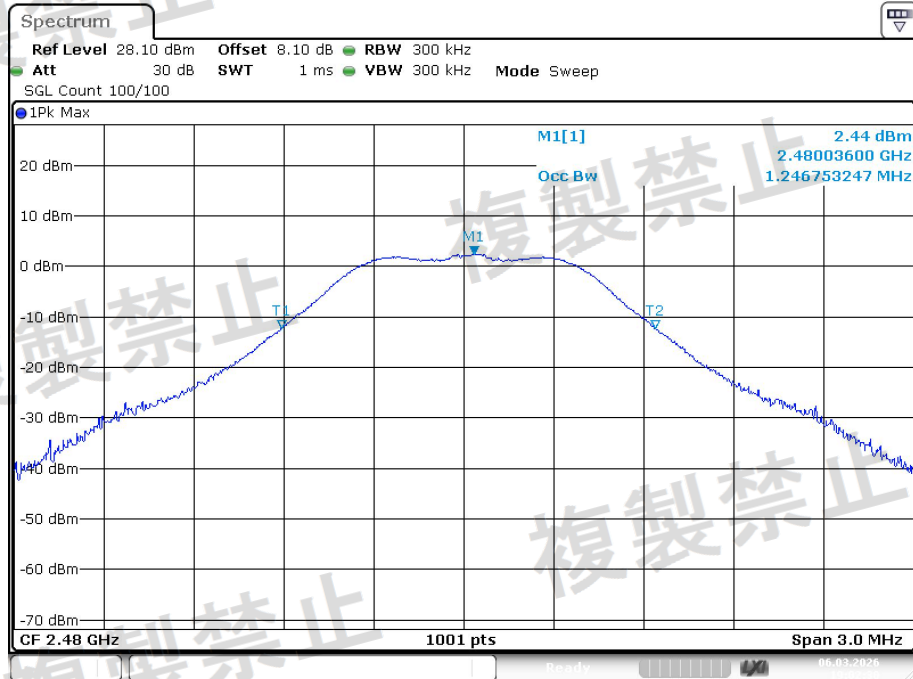
OBW NVNT BLE 1M 2402MHz Ant1



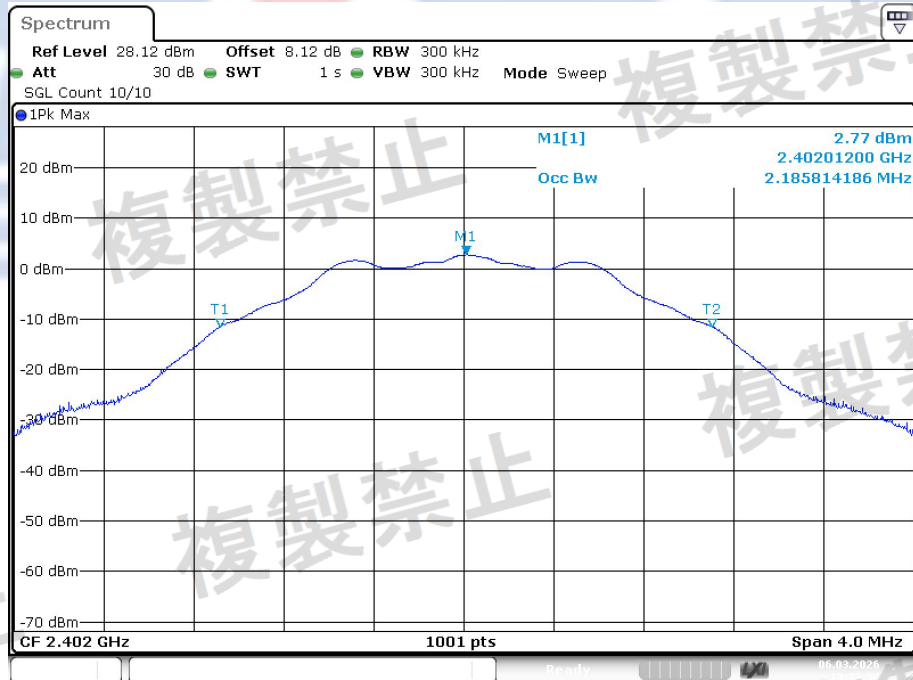
OBW NVNT BLE 1M 2440MHz Ant1



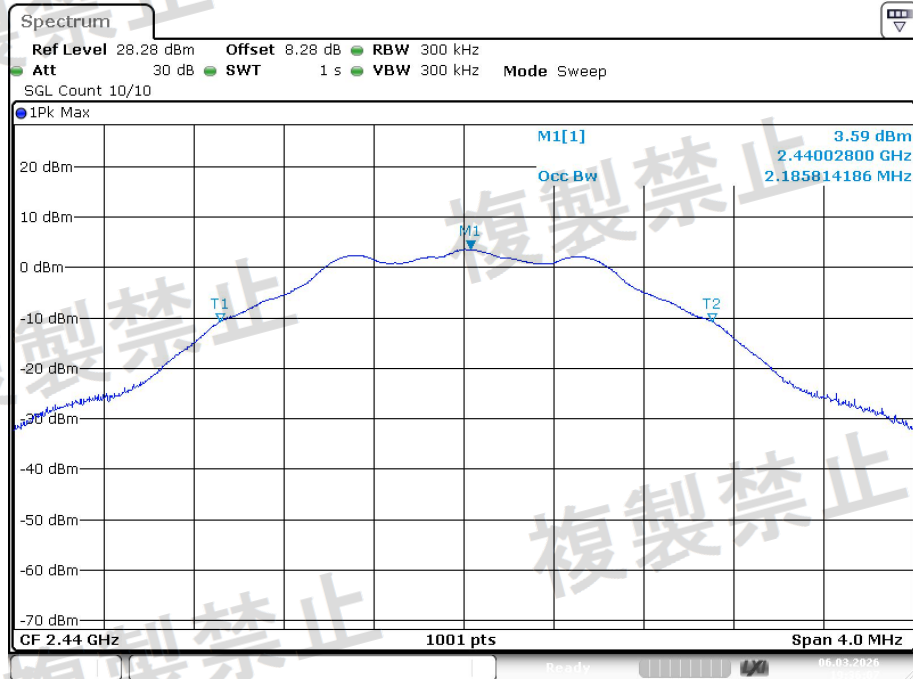
OBW NVNT BLE 1M 2480MHz Ant1



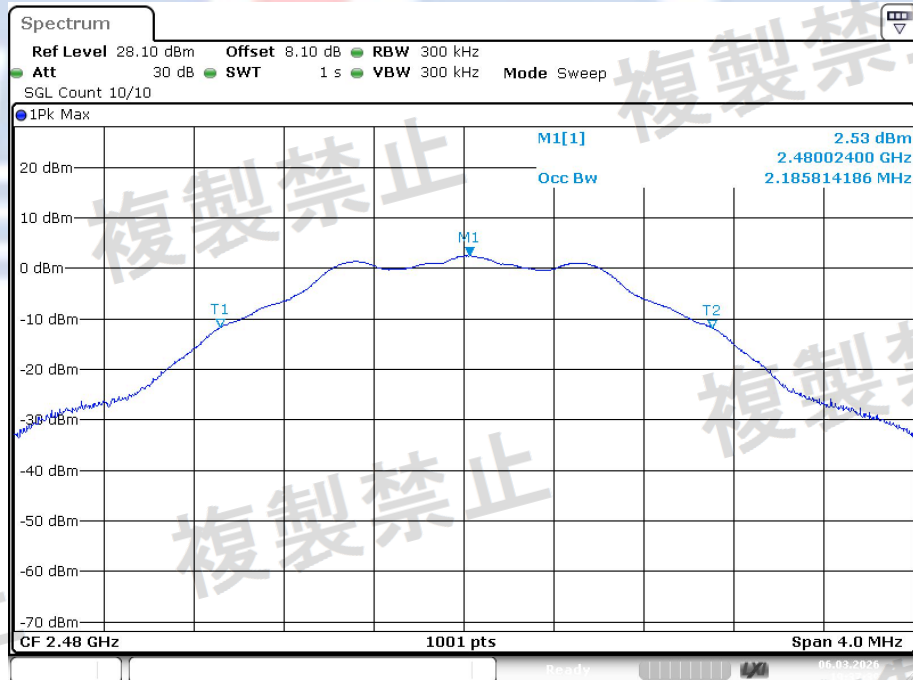
OBW NVNT BLE 2M 2402MHz Ant1



OBW NVNT BLE 2M 2440MHz Ant1



OBW NVNT BLE 2M 2480MHz Ant1



6. Transmitter Spurious Emissions (conducted)

6.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Calibration	Due Calibration
1	Spectrum analyzer	Agilent	N9020A	MY54488989	2025/11/10	2026/11/09
2	Spectrum analyzer	ROHDE&SCHWARZ	FSU26	200732	2025/11/10	2026/11/09
3	Attenuator	SCHWARZBECK	DGA 9552N	3161	2025/10/17	2026/10/16

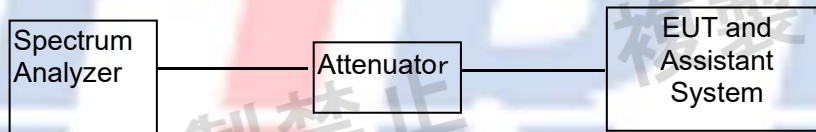
Note: The test equipment is calibrated by Huajue Medical Testing and Metrology (Shenzhen) Co., Ltd. Calibration standard: Article 24-2, Paragraph 4 of the Radio Act, method c

6.2. Limit

Permissible mean power of spurious emission of each frequency supplied to a feeder, that is, mean power of spurious emission in the 1 MHz bandwidth at frequency f other than frequency band used shall be as follows:

- $2,387\text{MHz} \leq f \leq 2,400\text{MHz}$ and $2,483.5\text{MHz} < f \leq 2,496.5\text{MHz}$ 25 μW or less
- $2,387\text{MHz} > f$ and $2,496.5\text{MHz} < f$ 2.5 μW or less

6.3. Block diagram of test setup



6.4. Test Procedure

- Configure EUT and assistant system according clause 2.3 and 7.3
- Set EUT work in test mode as described in clause 2.4
- Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:

Below 1GHz: Resolution BW: 1MHz.
Video BW: MHz.
Detector: Peak.
Trace Mode: Max Hold.

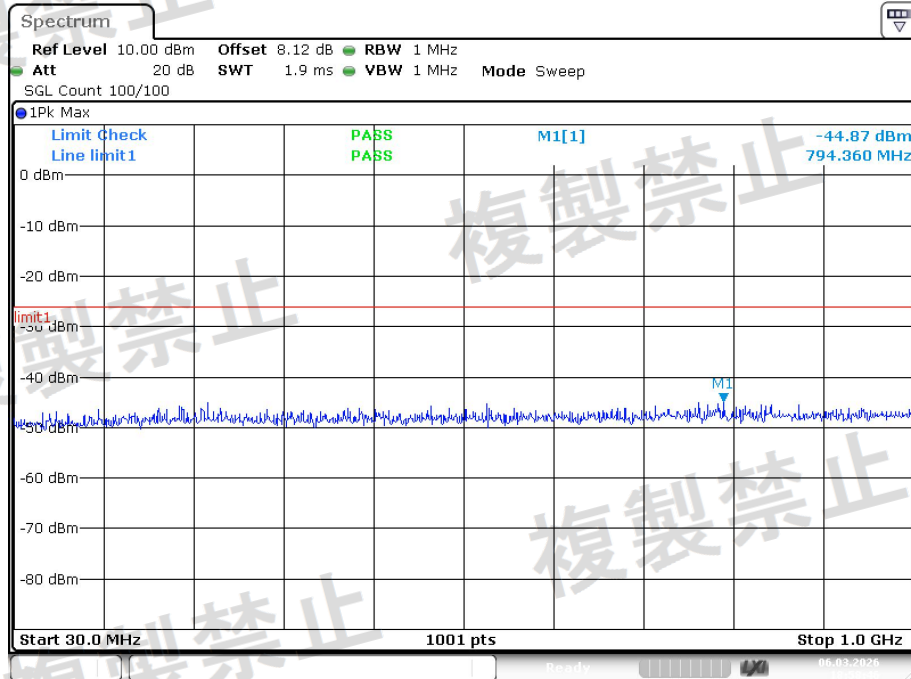
Above 1GHz: Resolution BW: 1MHz.
Video BW: 1MHz.
Detector: Peak.
Trace Mode: Max Hold.

- All the emissions from 30MHz to 13GHz were measured and record.

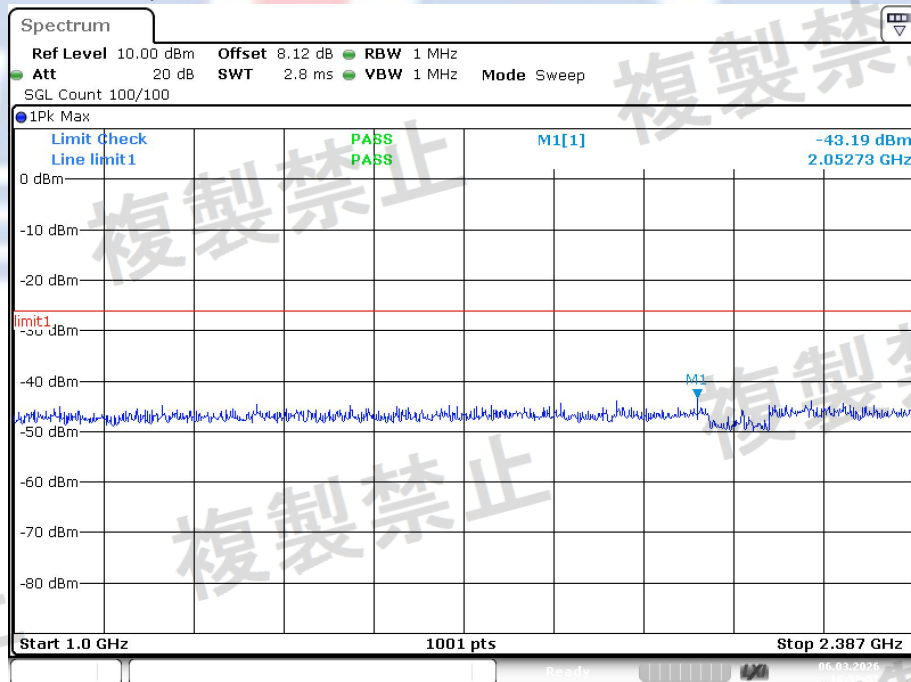
6.5. Test result

Condition	Mode	Frequency (MHz)	Antenna	Range (MHz)	Emission Frequency (MHz)	Max Value (dBm)	Max Value (μW)	Limit (dBm)	Limit (μW)	Verdict
NVNT	BLE 1M	2402	Ant1	30-1000	794.360	-44.87	0.033	-26	2.5	Pass
NVNT	BLE 1M	2402	Ant1	1000-2387	2052.73	-43.19	0.048	-26	2.5	Pass
NVNT	BLE 1M	2402	Ant1	2387-2400	2399.987	-30.71	0.849	-16	25	Pass
NVNT	BLE 1M	2402	Ant1	2483.5-2496.5	2483.591	-43.28	0.047	-16	25	Pass
NVNT	BLE 1M	2402	Ant1	2496.5-13000	6981.5	-38.16	0.153	-26	2.5	Pass
NVNT	BLE 1M	2440	Ant1	30-1000	722.58	-44.66	0.034	-26	2.5	Pass
NVNT	BLE 1M	2440	Ant1	1000-2387	2202.53	-43.93	0.040	-26	2.5	Pass
NVNT	BLE 1M	2440	Ant1	2387-2400	2394.553	-43.65	0.043	-16	25	Pass
NVNT	BLE 1M	2440	Ant1	2483.5-2496.5	2486.516	-43.50	0.045	-16	25	Pass
NVNT	BLE 1M	2440	Ant1	2496.5-13000	12621.9	-38.35	0.146	-26	2.5	Pass
NVNT	BLE 1M	2480	Ant1	30-1000	411.21	-44.55	0.035	-26	2.5	Pass
NVNT	BLE 1M	2480	Ant1	1000-2387	2174.79	-43.86	0.041	-26	2.5	Pass
NVNT	BLE 1M	2480	Ant1	2387-2400	2393.006	-43.84	0.041	-16	25	Pass
NVNT	BLE 1M	2480	Ant1	2483.5-2496.5	2483.695	-42.34	0.058	-16	25	Pass
NVNT	BLE 1M	2480	Ant1	2496.5-13000	6950	-38.96	0.127	-26	2.5	Pass
NVNT	BLE 2M	2402	Ant1	30-1000	669.23	-44.45	0.036	-26	2.5	Pass
NVNT	BLE 2M	2402	Ant1	1000-2387	2019.45	-42.64	0.054	-26	2.5	Pass
NVNT	BLE 2M	2402	Ant1	2387-2400	2399.987	-20.65	8.610	-16	25	Pass
NVNT	BLE 2M	2402	Ant1	2483.5-2496.5	2486.503	-42.76	0.053	-16	25	Pass
NVNT	BLE 2M	2402	Ant1	2496.5-13000	12569.4	-38.63	0.137	-26	2.5	Pass
NVNT	BLE 2M	2440	Ant1	30-1000	933.07	-44.55	0.035	-26	2.5	Pass
NVNT	BLE 2M	2440	Ant1	1000-2387	1869.65	-44.14	0.039	-26	2.5	Pass
NVNT	BLE 2M	2440	Ant1	2387-2400	2392.109	-43.84	0.041	-16	25	Pass
NVNT	BLE 2M	2440	Ant1	2483.5-2496.5	2492.847	-43.33	0.046	-16	25	Pass
NVNT	BLE 2M	2440	Ant1	2496.5-13000	6151.7	-38.71	0.135	-26	2.5	Pass
NVNT	BLE 2M	2480	Ant1	30-1000	903	-44.87	0.033	-26	2.5	Pass
NVNT	BLE 2M	2480	Ant1	1000-2387	1800.30	-43.92	0.041	-26	2.5	Pass
NVNT	BLE 2M	2480	Ant1	2387-2400	2398.258	-43.64	0.043	-16	25	Pass
NVNT	BLE 2M	2480	Ant1	2483.5-2496.5	2488.856	-42.79	0.053	-16	25	Pass
NVNT	BLE 2M	2480	Ant1	2496.5-13000	11277.4	-39.07	0.124	-26	2.5	Pass

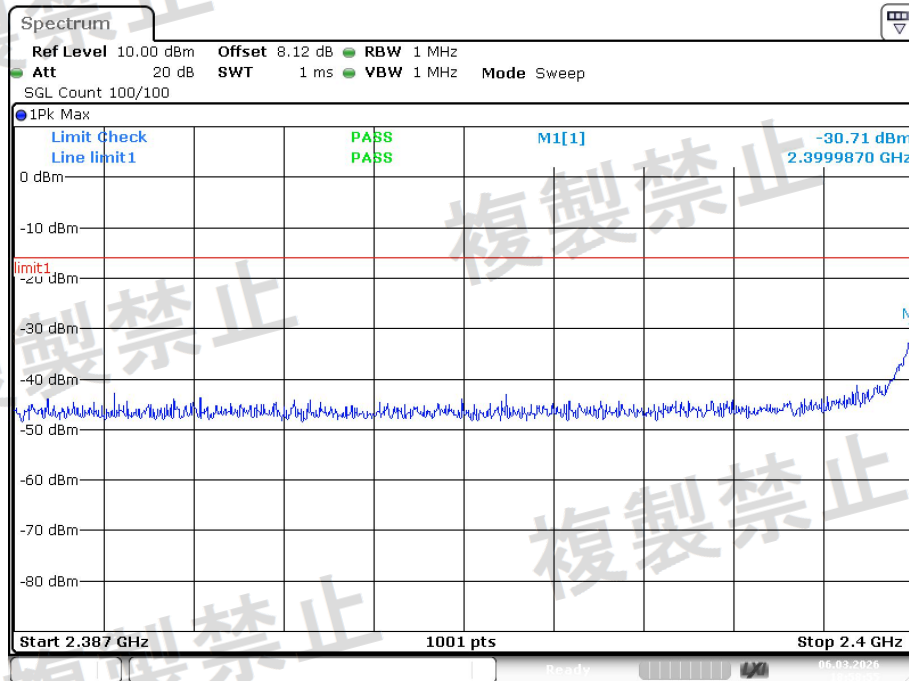
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 @ 30MHz-1000MHz



Tx. Spurious NVNT BLE 1M 2402MHz Ant1 @ 1000MHz-2387MHz

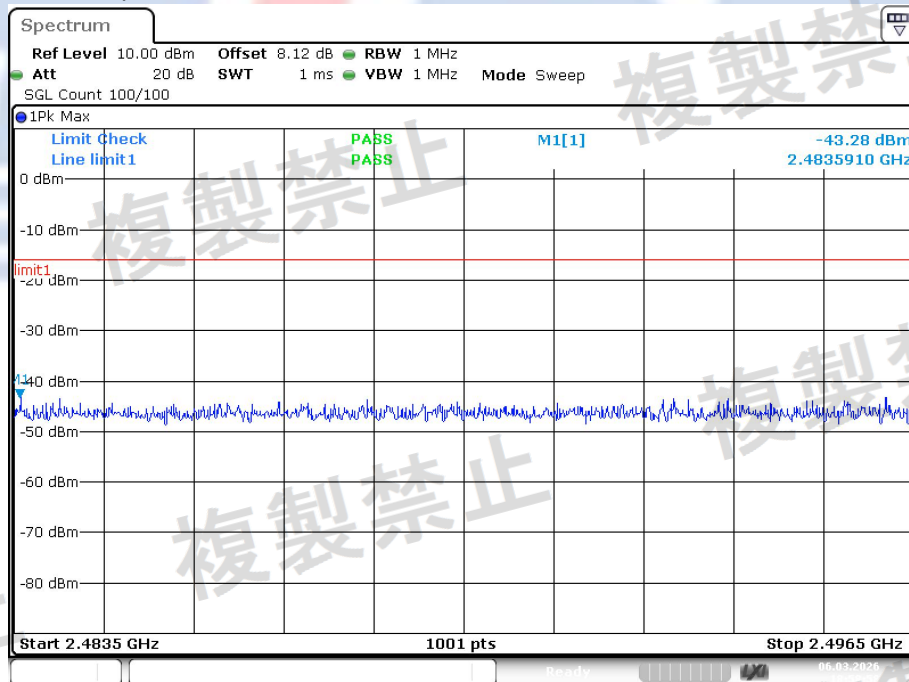


Tx. Spurious NVNT BLE 1M 2402MHz Ant1 @ 2387MHz-2400MHz



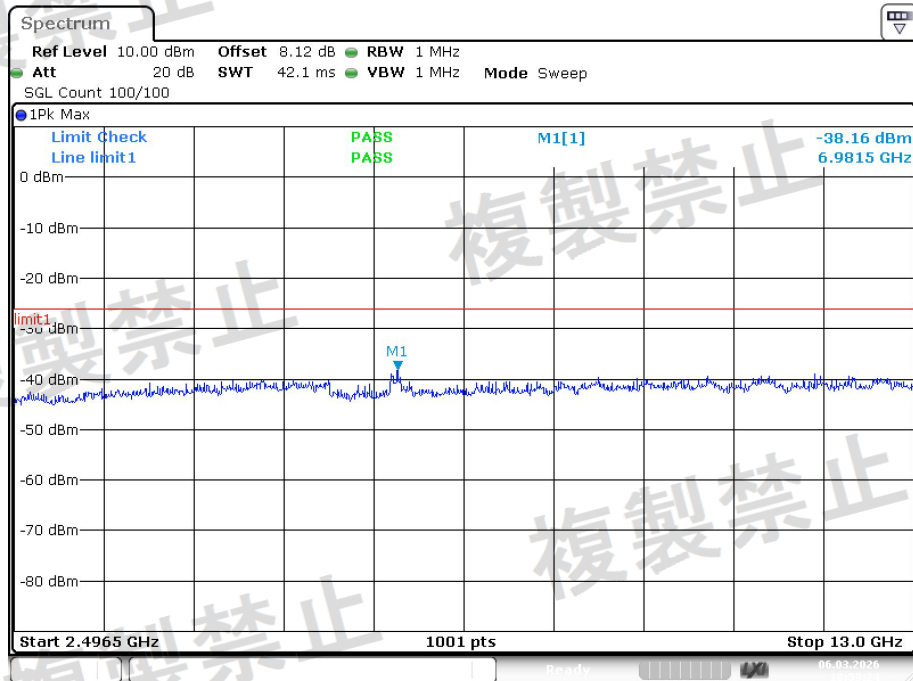
Date: 6.MAR.2026 18:58:55

Tx. Spurious NVNT BLE 1M 2402MHz Ant1 @ 2483.5MHz-2496.5MHz

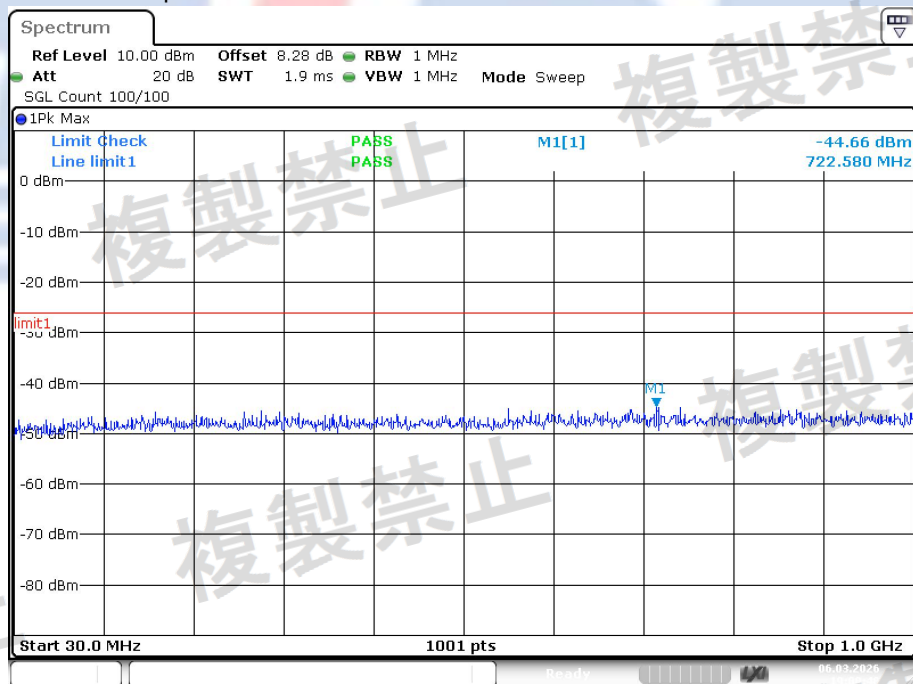


Date: 6.MAR.2026 18:58:58

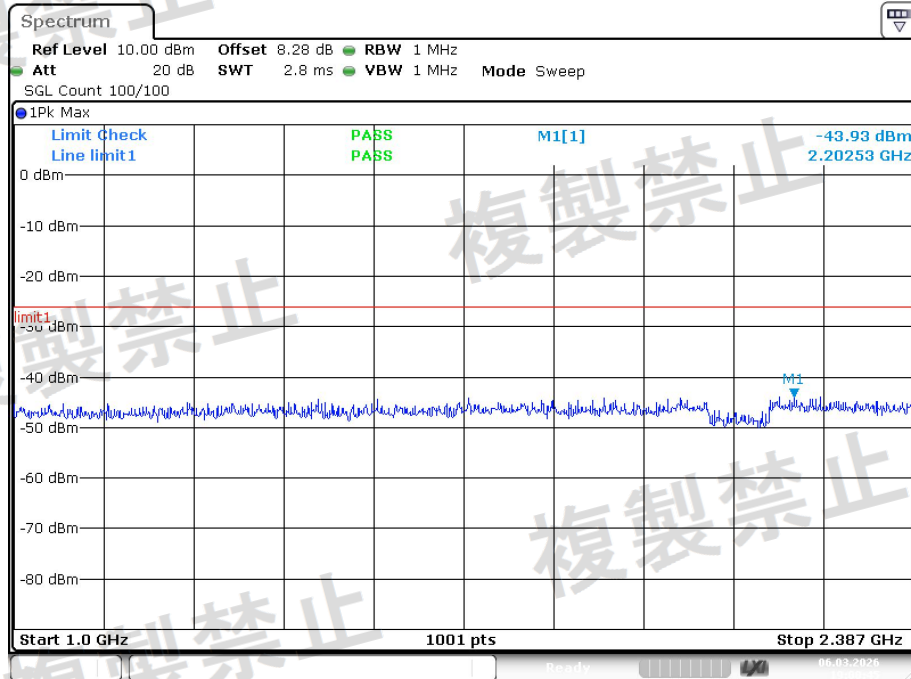
Tx. Spurious NVNT BLE 1M 2402MHz Ant1 @ 2496.5MHz-13000MHz



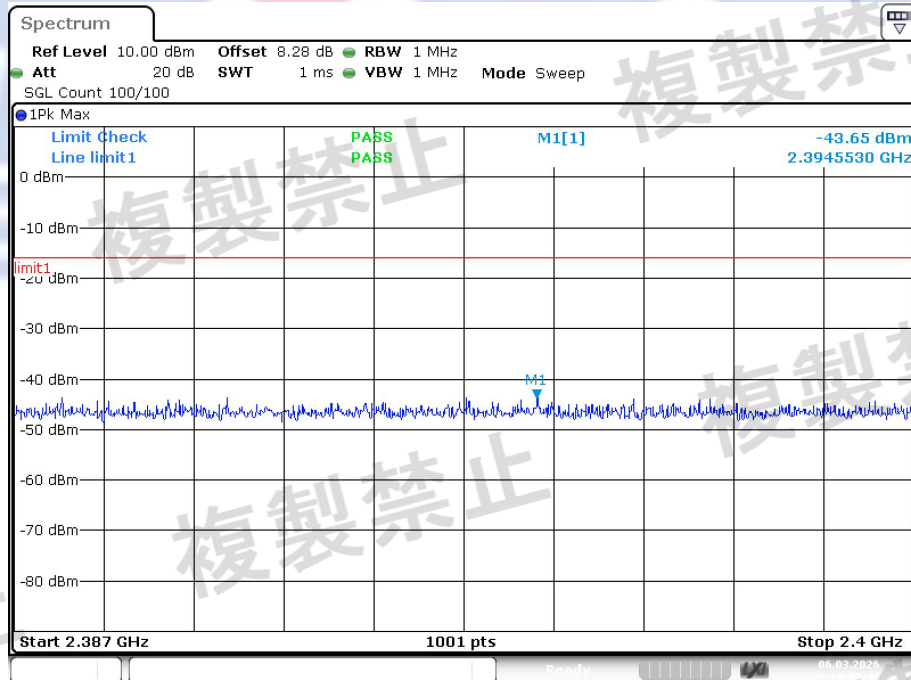
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 @ 30MHz-1000MHz



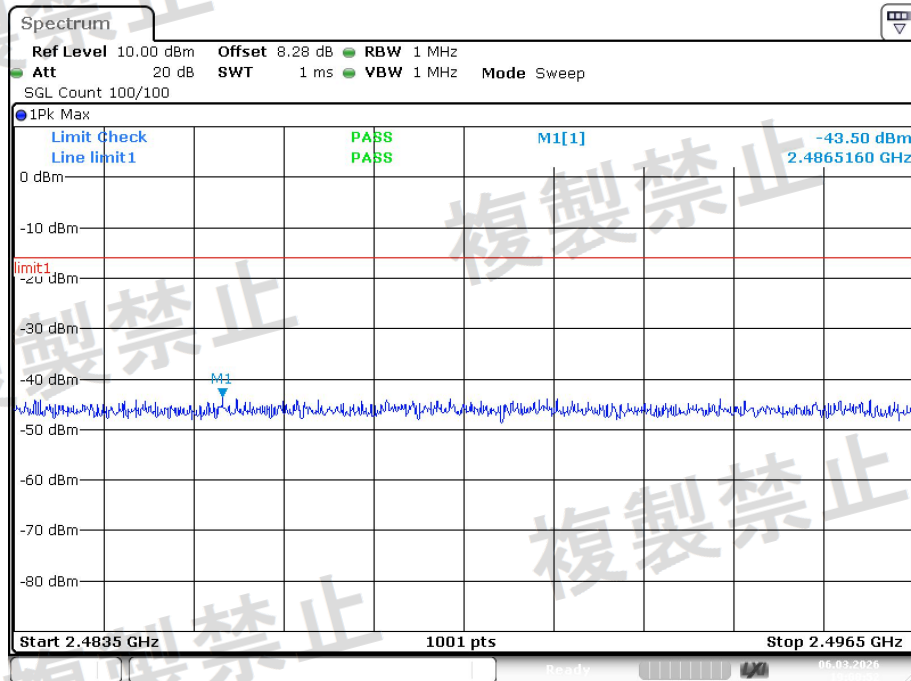
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 @ 1000MHz-2387MHz



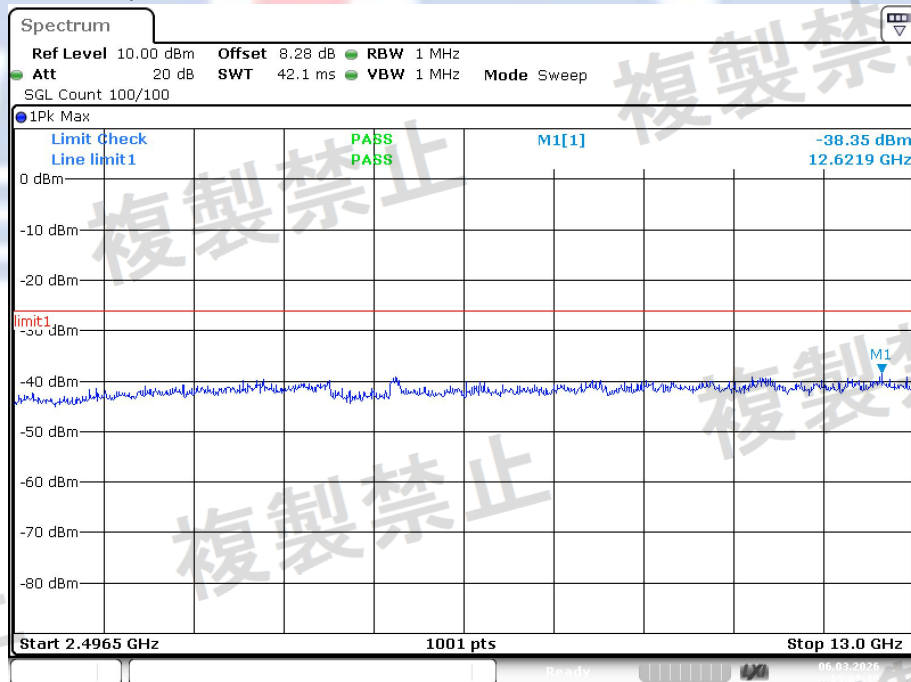
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 @ 2387MHz-2400MHz



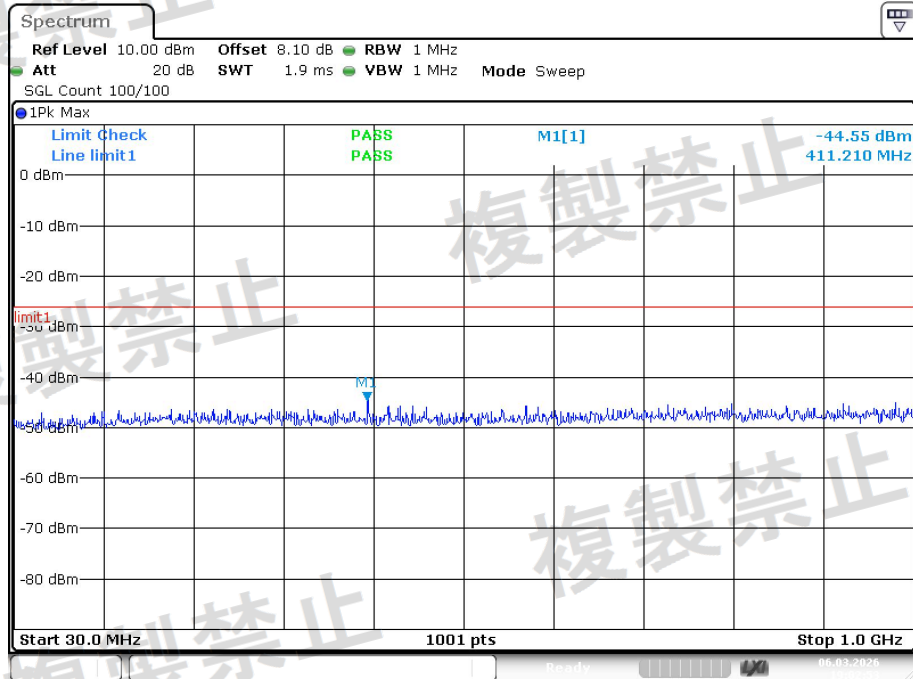
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 @ 2483.5MHz-2496.5MHz



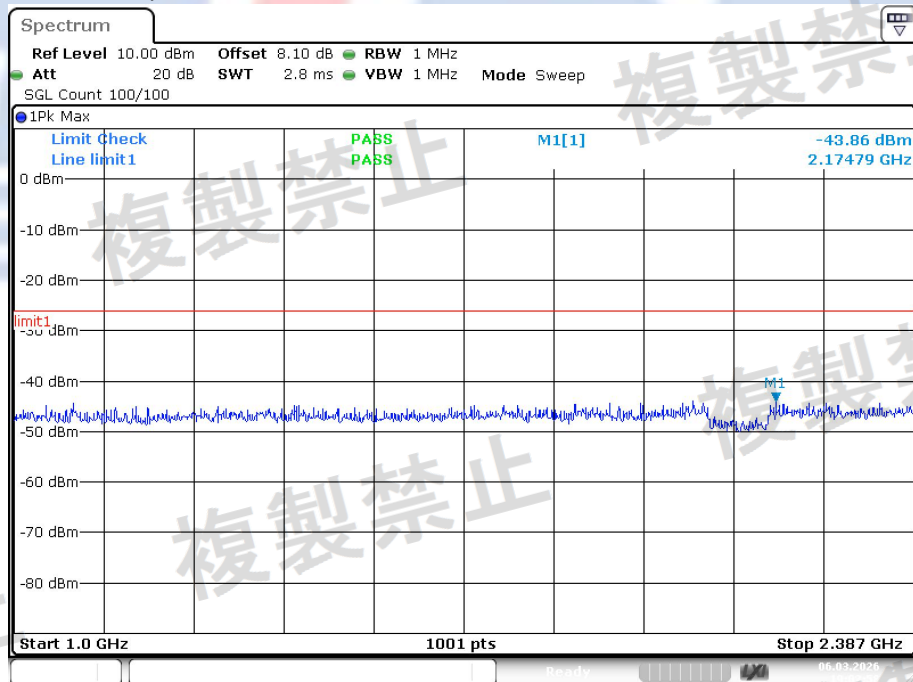
Tx. Spurious NVNT BLE 1M 2440MHz Ant1 @ 2496.5MHz-13000MHz



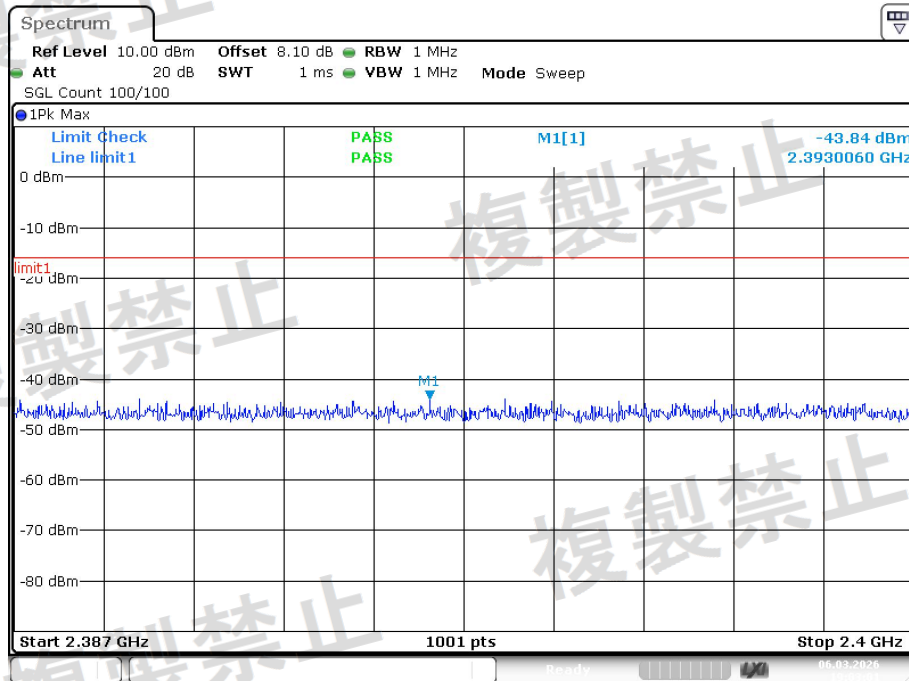
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 30MHz-1000MHz



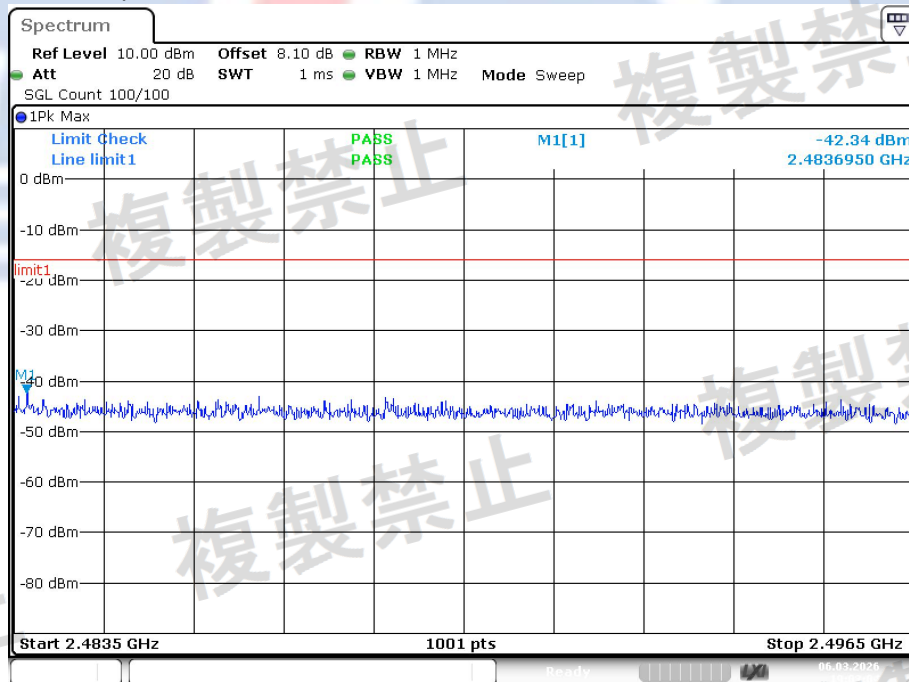
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 1000MHz-2387MHz



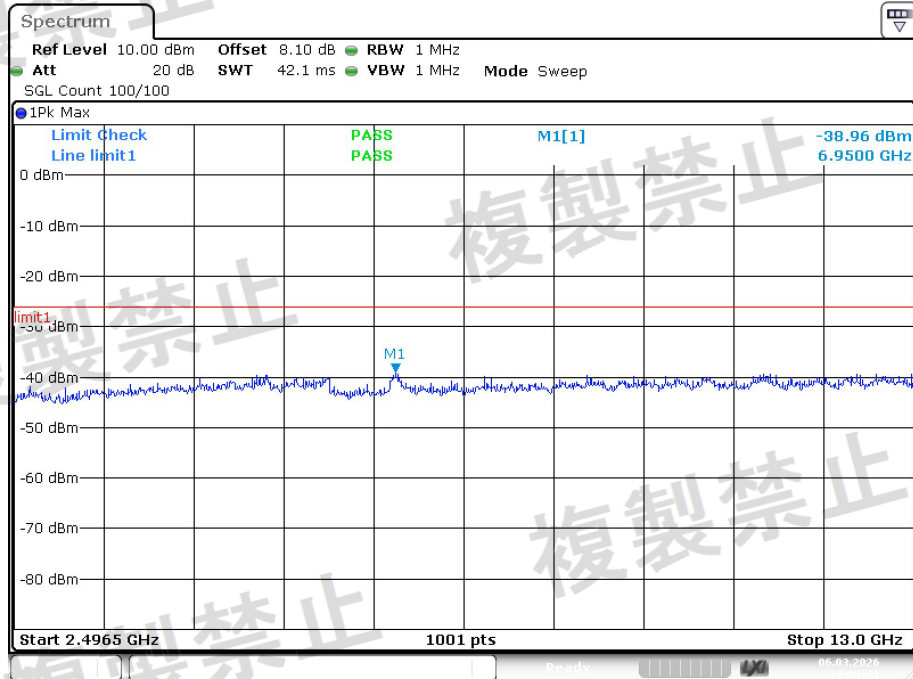
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 2387MHz-2400MHz



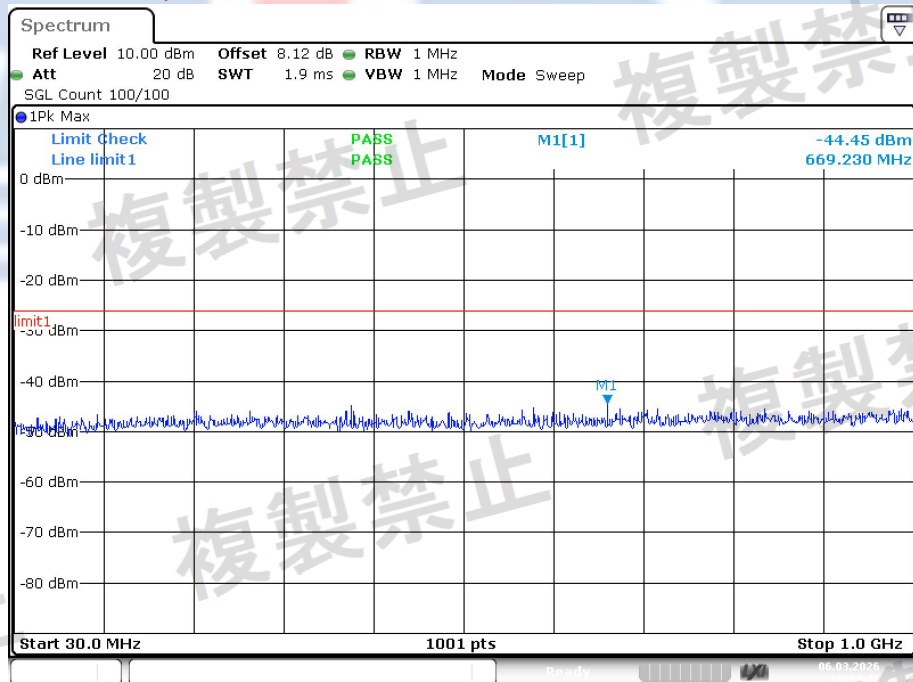
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 2483.5MHz-2496.5MHz



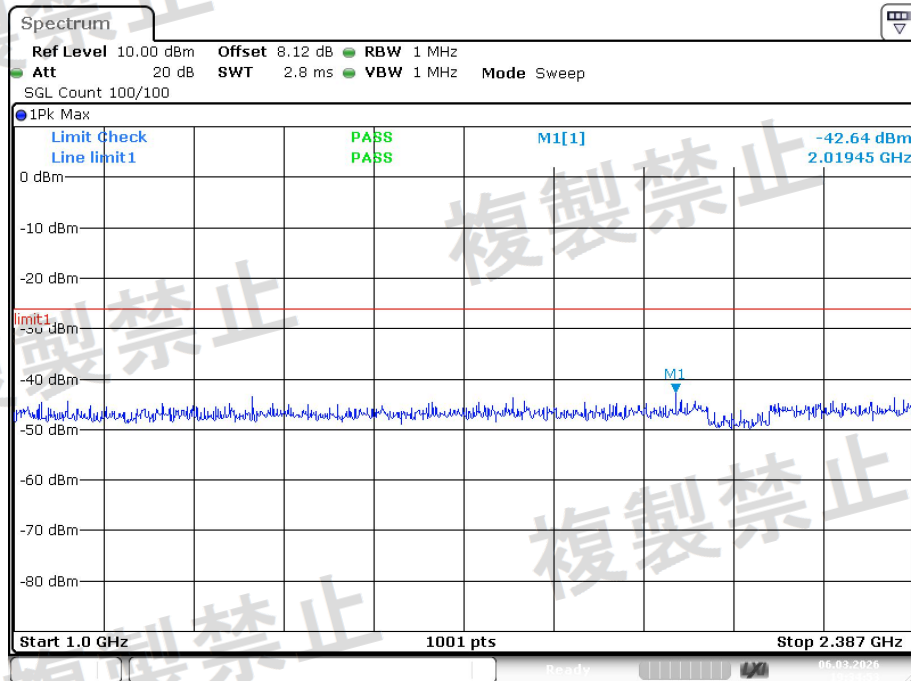
Tx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 2496.5MHz-13000MHz



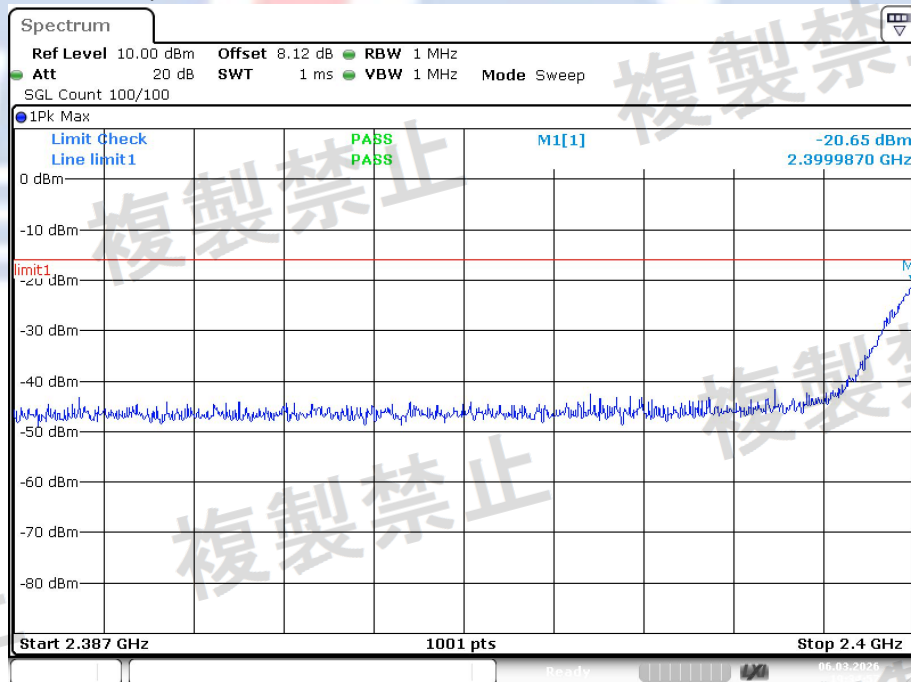
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 @ 30MHz-1000MHz



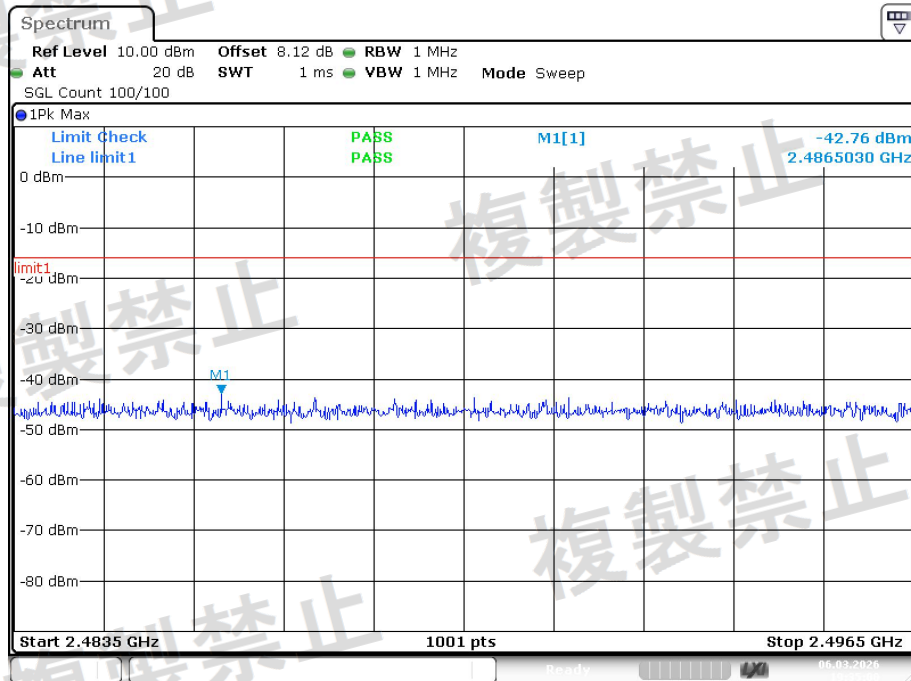
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 @ 1000MHz-2387MHz



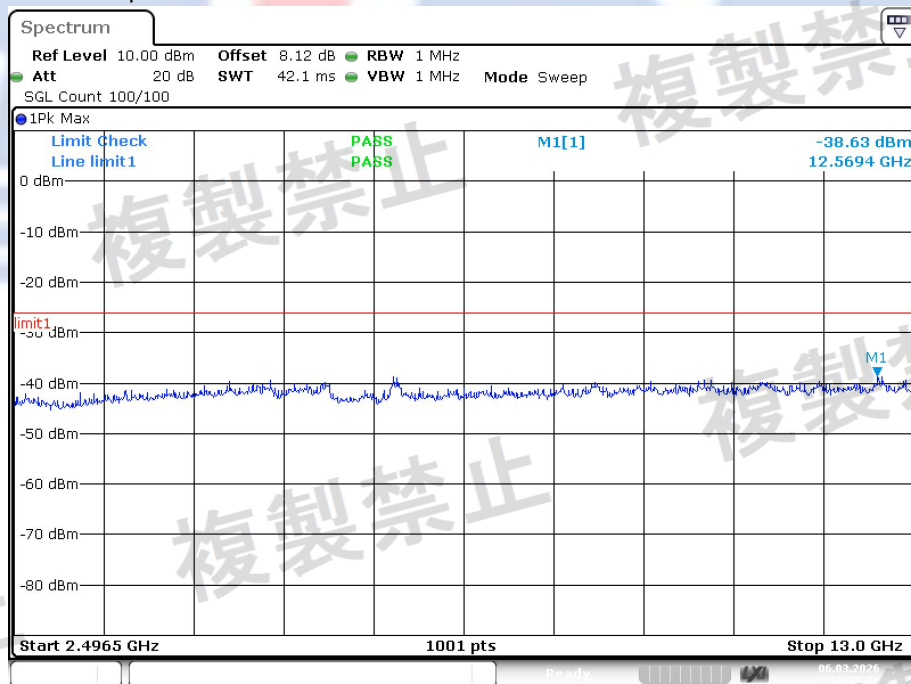
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 @ 2387MHz-2400MHz



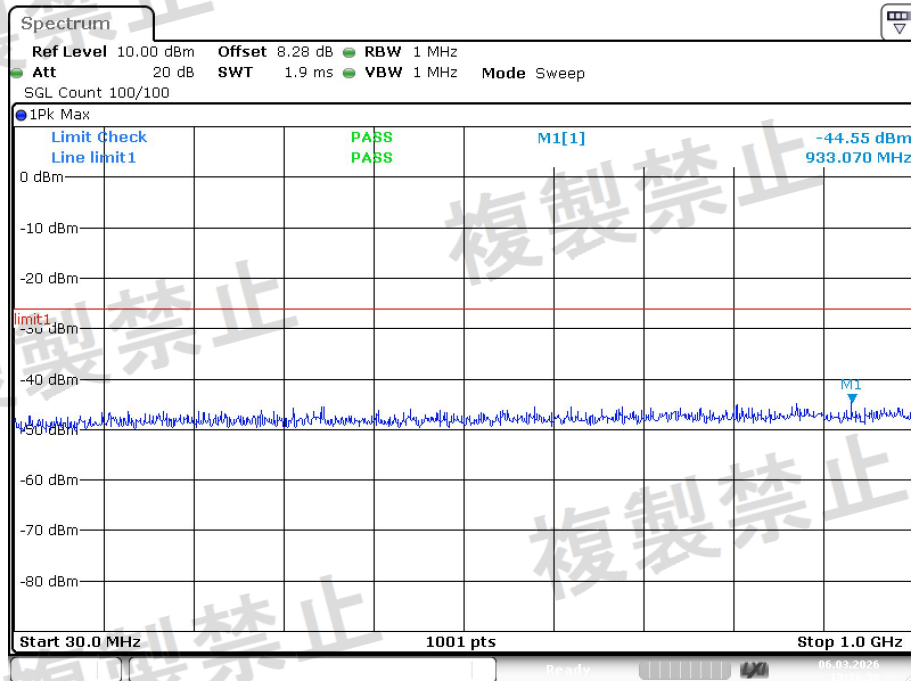
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 @ 2483.5MHz-2496.5MHz



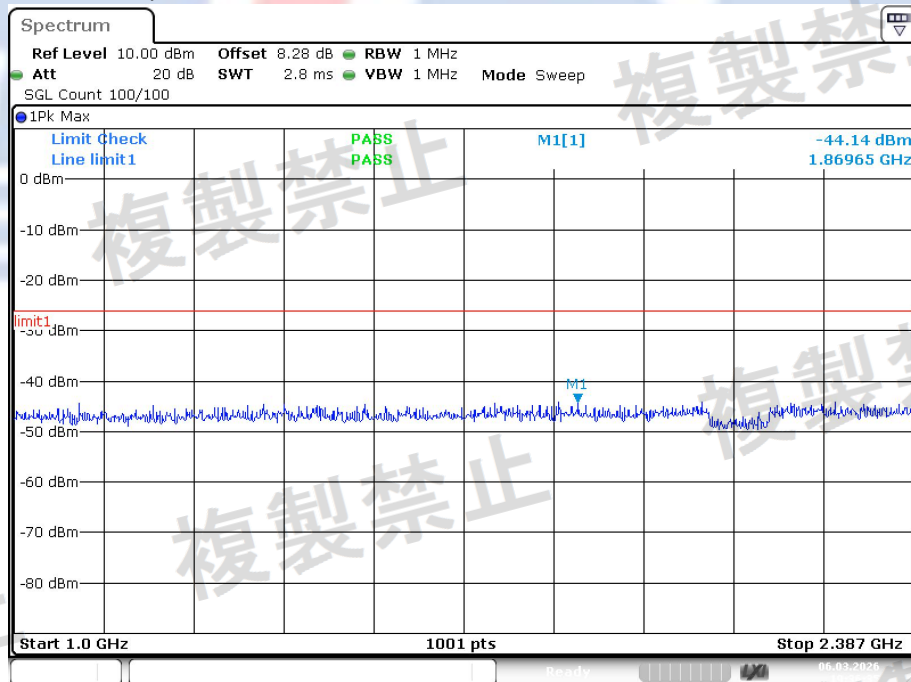
Tx. Spurious NVNT BLE 2M 2402MHz Ant1 @ 2496.5MHz-13000MHz



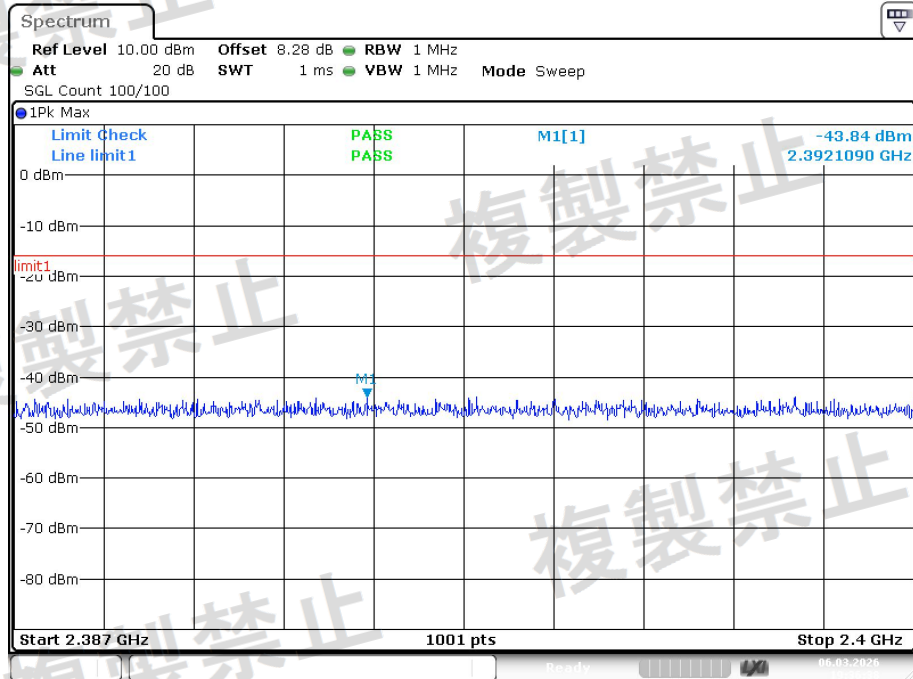
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 @ 30MHz-1000MHz



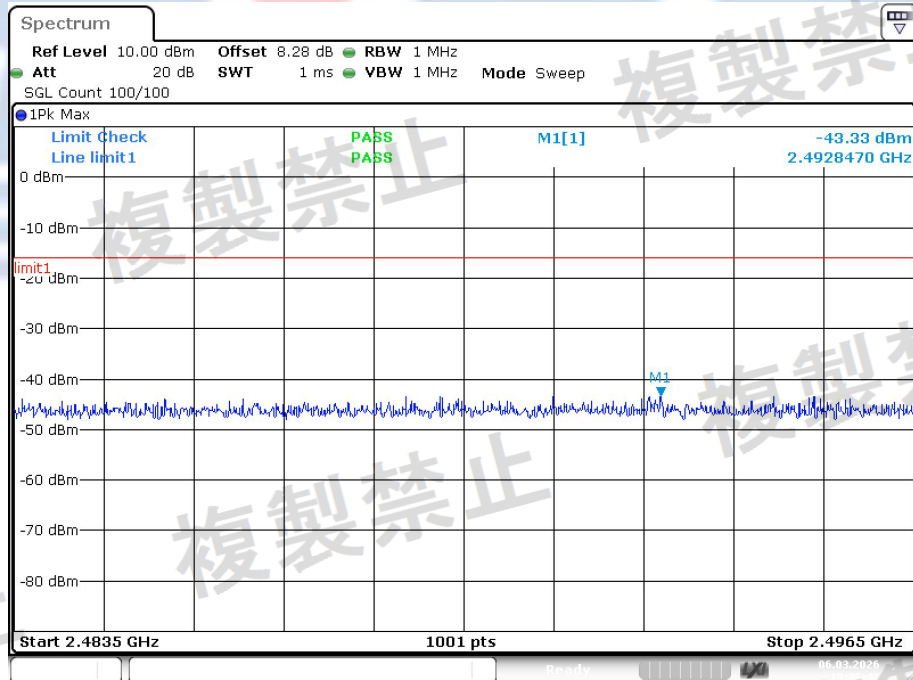
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 @ 1000MHz-2387MHz



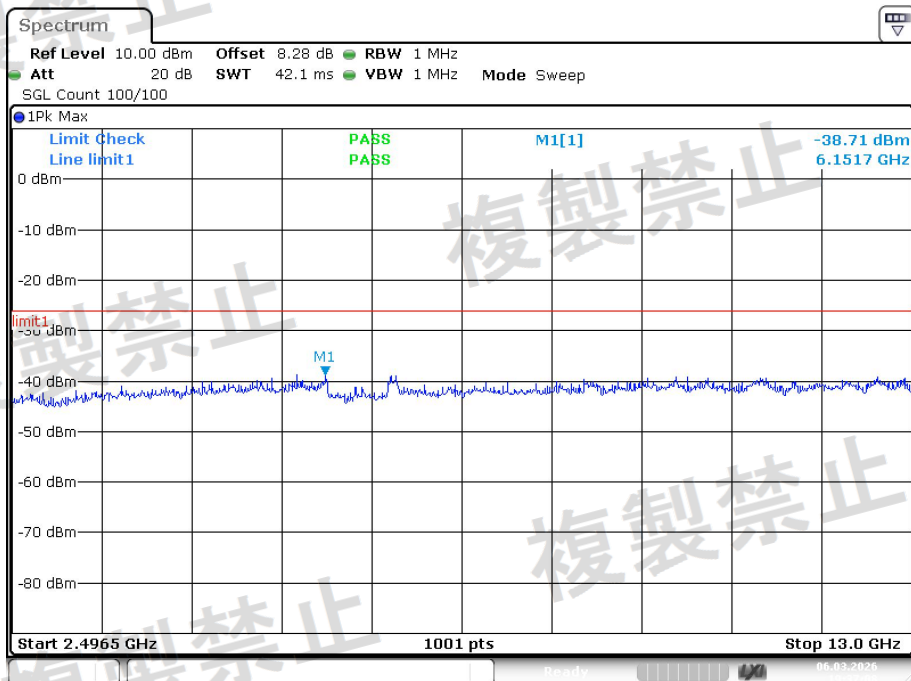
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 @ 2387MHz-2400MHz



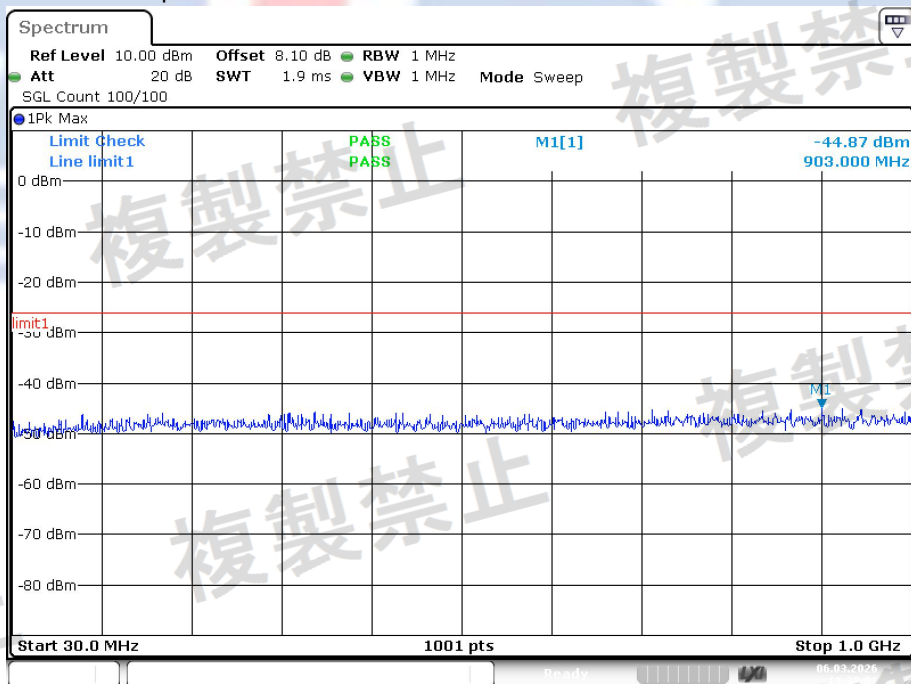
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 @ 2483.5MHz-2496.5MHz



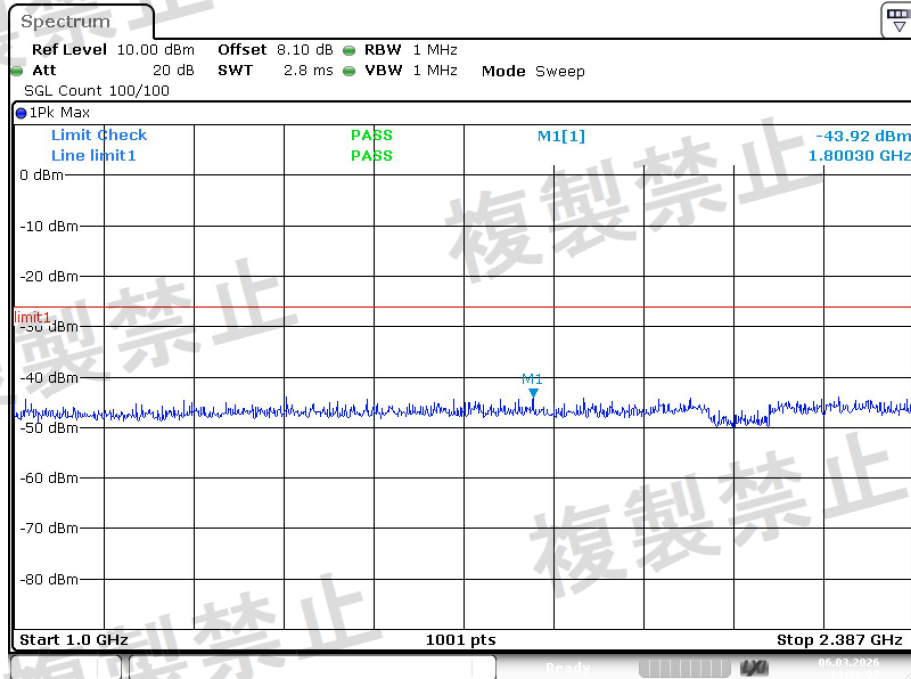
Tx. Spurious NVNT BLE 2M 2440MHz Ant1 @ 2496.5MHz-13000MHz



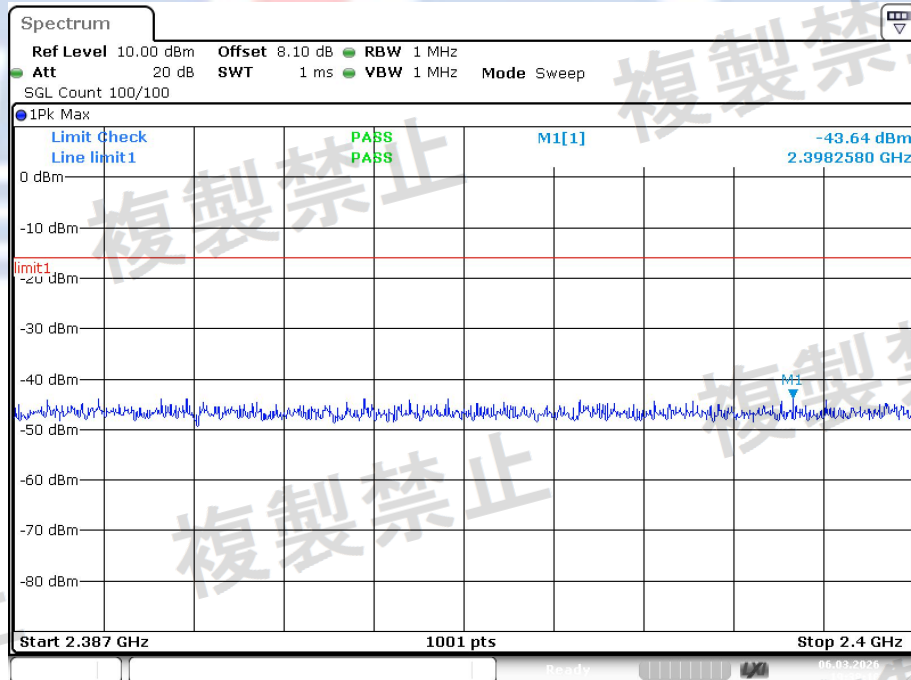
Tx. Spurious NVNT BLE 2M 2480MHz Ant1 @ 30MHz-1000MHz



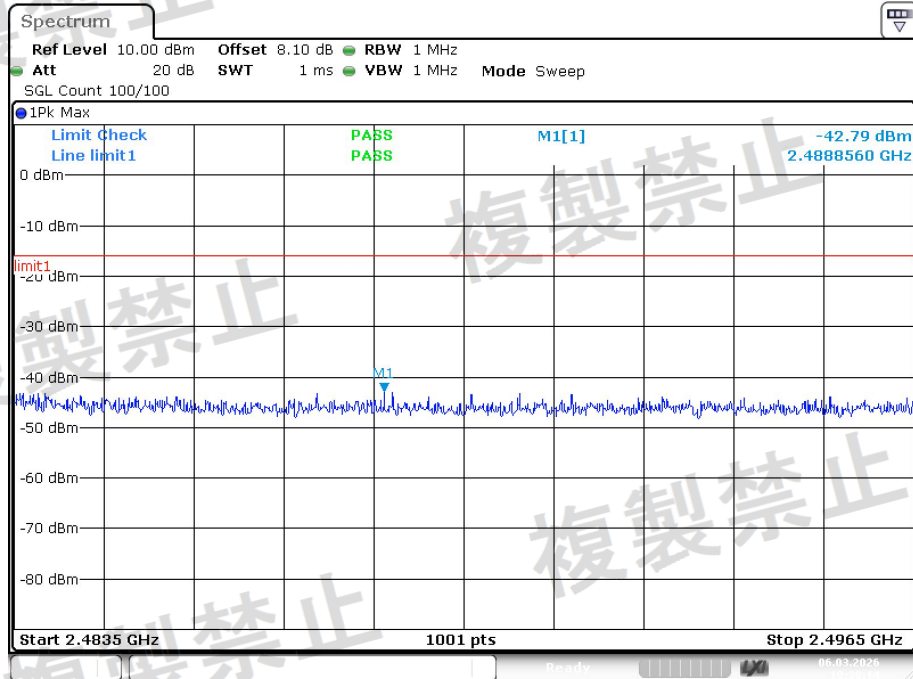
Tx. Spurious NVNT BLE 2M 2480MHz Ant1 @ 1000MHz-2387MHz



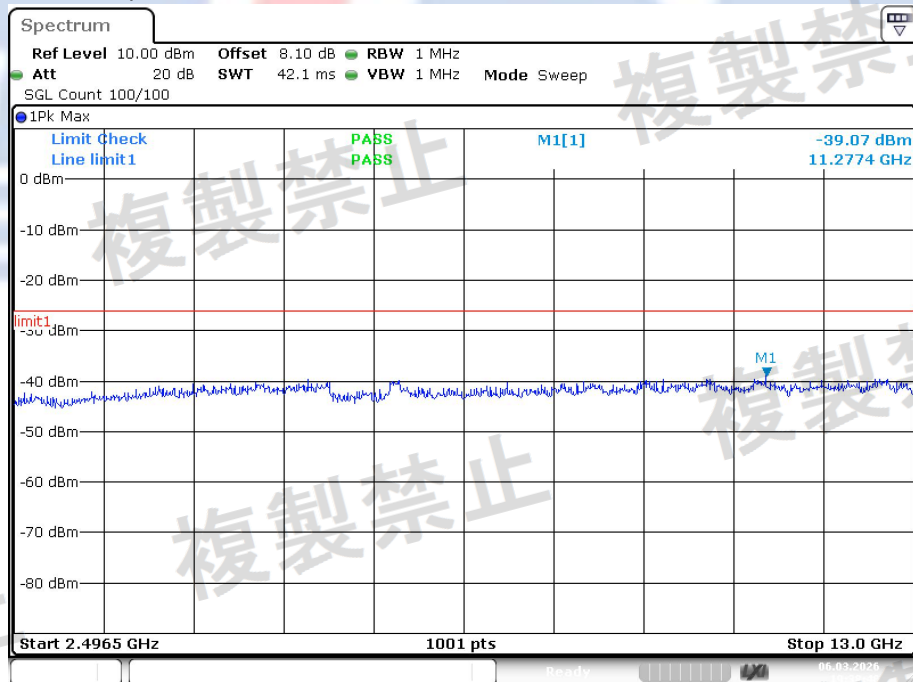
Tx. Spurious NVNT BLE 2M 2480MHz Ant1 @ 2387MHz-2400MHz



Tx, Spurious NVNT BLE 2M 2480MHz Ant1 @ 2483.5MHz-2496.5MHz



Tx, Spurious NVNT BLE 2M 2480MHz Ant1 @ 2496.5MHz-13000MHz



7. Interference prevention function

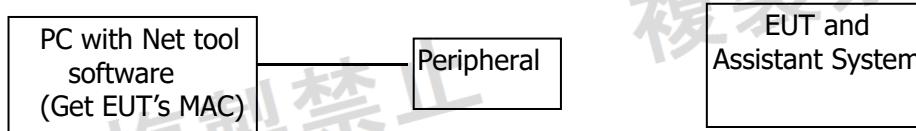
7.1. Limit

Item	Limits
Identification	≥48 bits

7.2. Measuring ID Code Software

Item	Limits
MAC IP List	MAC Scan

7.3. Block diagram of test setup



7.4. Test Procedure

- In the case that the EUT has the function of automatically transmitting the identification code: a. Transmit the predetermined identification codes from EUT. b. Check the transmitted identification codes with the demodulator.
- In the case of receiving the identification code: a. Transmit the predetermined identification codes from the counterpart. b. Check if communication is normal. c. Transmit the signals other than predetermined ID codes from the counterpart. d. Check if the EUT stops the transmission, or if it displays that identification codes are different from the predetermined ones.

7.5. Test result

EUT:	Smart Trainer	Tested by:	Aaron Long
Temperature:	24℃	MAC address:	A7:3A:A6:35:5C:09
Humidity:	56%RH		
Test result:	Conform		

8. Secondary Radiated Emissions

8.1. Test Equipment

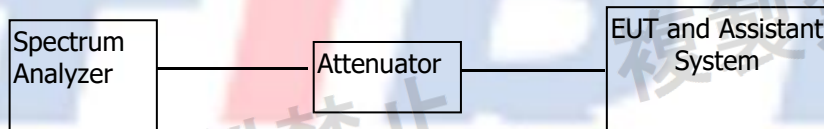
Item	Type	Manufacturer	Model No.	Serial No.	Last Calibration	Due Calibration
1	Spectrum analyzer	Agilent	N9020A	MY54488989	2025/11/10	2026/11/09
2	Spectrum analyzer	ROHDE&SCHWARZ	FSU26	200732	2025/11/10	2026/11/09
3	Attenuator	SCHWARZBECK	DGA 9552N	3161	2025/10/17	2026/10/16

Note: The test equipment is calibrated by Huajue Medical Testing and Metrology (Shenzhen) Co., Ltd. Calibration standard: Article 24-2, Paragraph 4 of the Radio Act, method c

8.2. Limit

The limit on secondary emissions radiated from the receiving equipment within which the function of other radio equipment will not be impaired shall be, in terms of the power of a dummy antenna circuit that has the same electrical constant as the receiving antenna, 4 nW or less at a frequency below 1 GHz and 20 nW or less at a frequency of 1 GHz or higher as measured using the circuit.

8.3. Block diagram of test setup



8.4. Test Procedure

- (1) Configure EUT and assistant system according clause 2.3 and 13.3
- (2) Set EUT work in test mode as described in clause 2.4
- (3) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:
Resolution BW: 100 KHz for frequency below 1GHz and 1MHz for frequency above 1GHz
Video BW: 100 KHz for frequency below 1GHz and 1MHz for frequency above 1GHz
Detector: Peak.
Trace Mode: Max Hold.
- (4) All the emissions from 30MHz to 13GHz were measured and record.

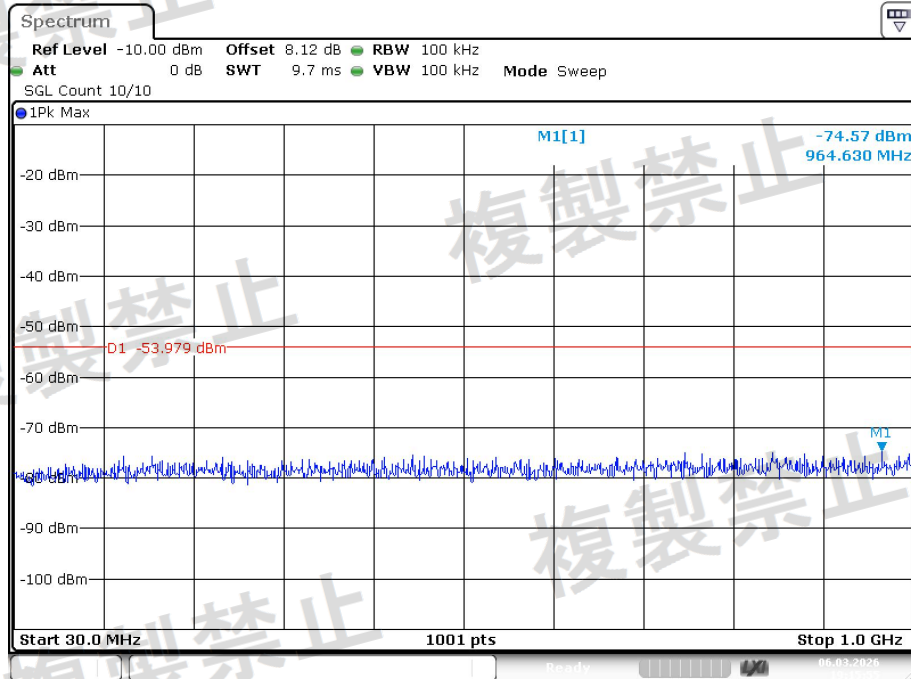
8.5. Test result

Pass. (See below original test data)

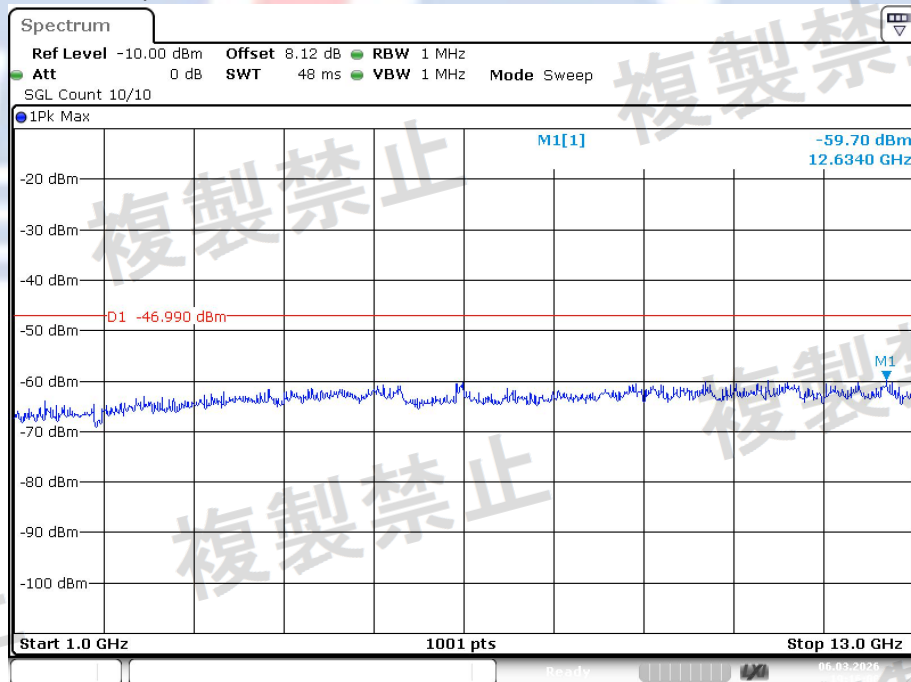
Condition	Mode	Frequency (MHz)	Antenna	Range (MHz)	Emission Frequency (MHz)	Max Value (dBm)	Max Value (nW)	Limit (dBm)	Limit (nW)	Verdict
NVNT	BLE 1M	2402	Ant1	30-1000	964.63	-74.57	0.03	-54	4	Pass
NVNT	BLE 1M	2402	Ant1	1000-13000	12634.0	-59.70	1.07	-47	20	Pass
NVNT	BLE 1M	2440	Ant1	30-1000	935.56	-74.02	0.04	-54	4	Pass
NVNT	BLE 1M	2440	Ant1	1000-13000	10560.0	-59.37	1.16	-47	20	Pass
NVNT	BLE 1M	2480	Ant1	30-1000	955.91	-74.46	0.04	-54	4	Pass
NVNT	BLE 1M	2480	Ant1	1000-13000	11268.0	-59.72	1.07	-47	20	Pass
NVNT	BLE 2M	2402	Ant1	30-1000	371.58	-74.76	0.03	-54	4	Pass
NVNT	BLE 2M	2402	Ant1	1000-13000	8978.0	-58.82	1.31	-47	20	Pass
NVNT	BLE 2M	2440	Ant1	30-1000	207.820	-73.68	0.04	-54	4	Pass
NVNT	BLE 2M	2440	Ant1	1000-13000	12598.0	-59.66	1.08	-47	20	Pass
NVNT	BLE 2M	2480	Ant1	30-1000	921.990	-74.21	0.04	-54	4	Pass
NVNT	BLE 2M	2480	Ant1	1000-13000	11412.0	-58.92	1.28	-47	20	Pass



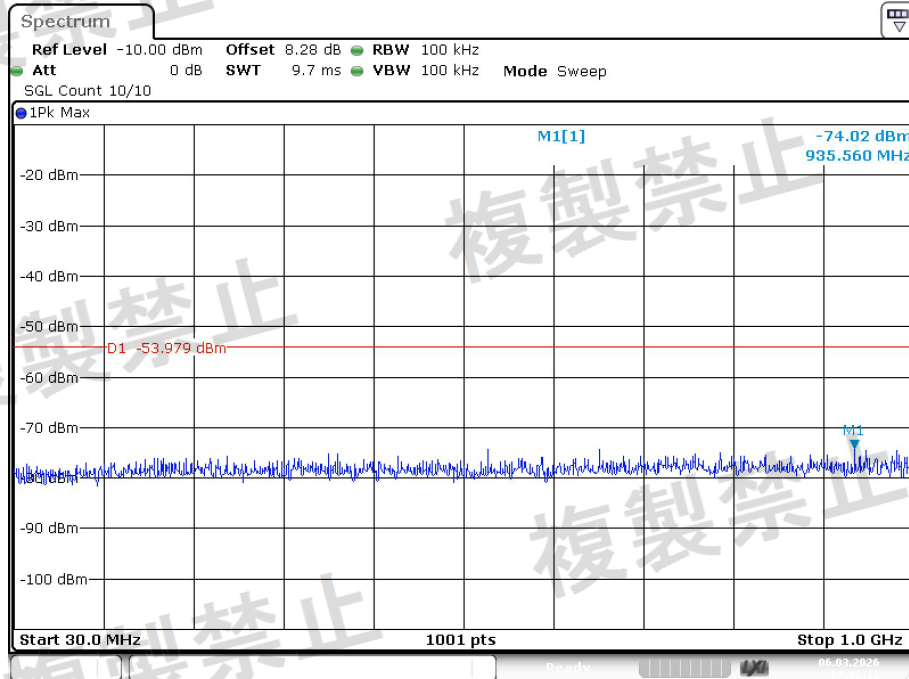
Rx. Spurious NVNT BLE 1M 2402MHz Ant1 @ 30MHz-1000MHz



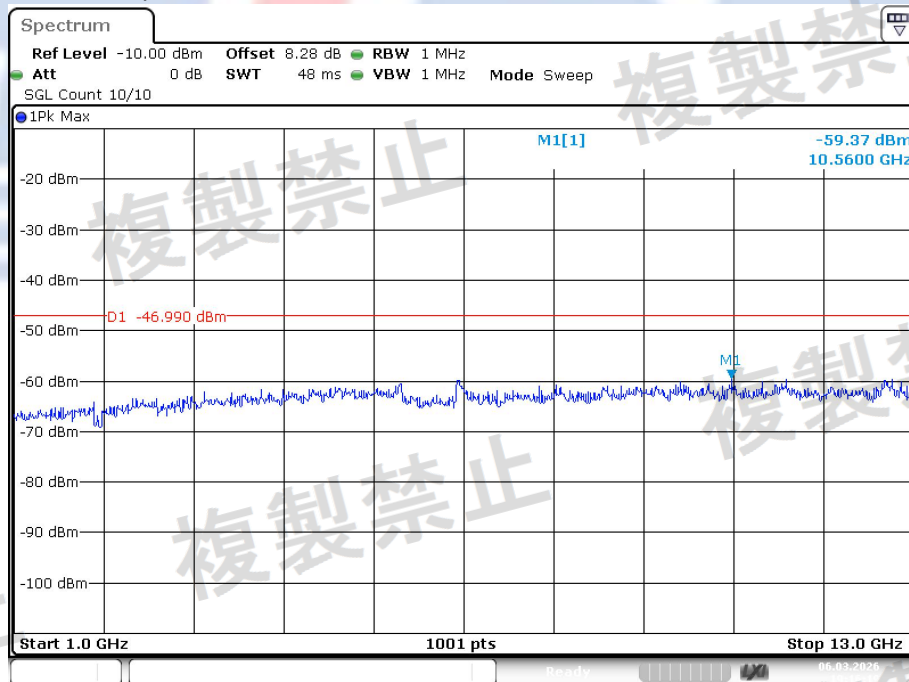
Rx. Spurious NVNT BLE 1M 2402MHz Ant1 @ 1000MHz-13000MHz



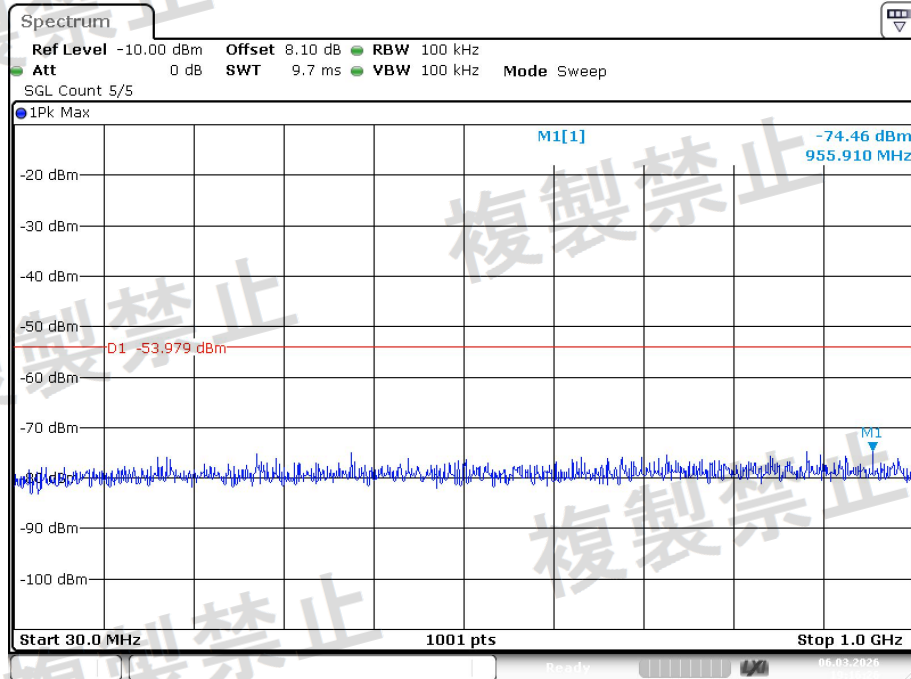
Rx. Spurious NVNT BLE 1M 2440MHz Ant1 @ 30MHz-1000MHz



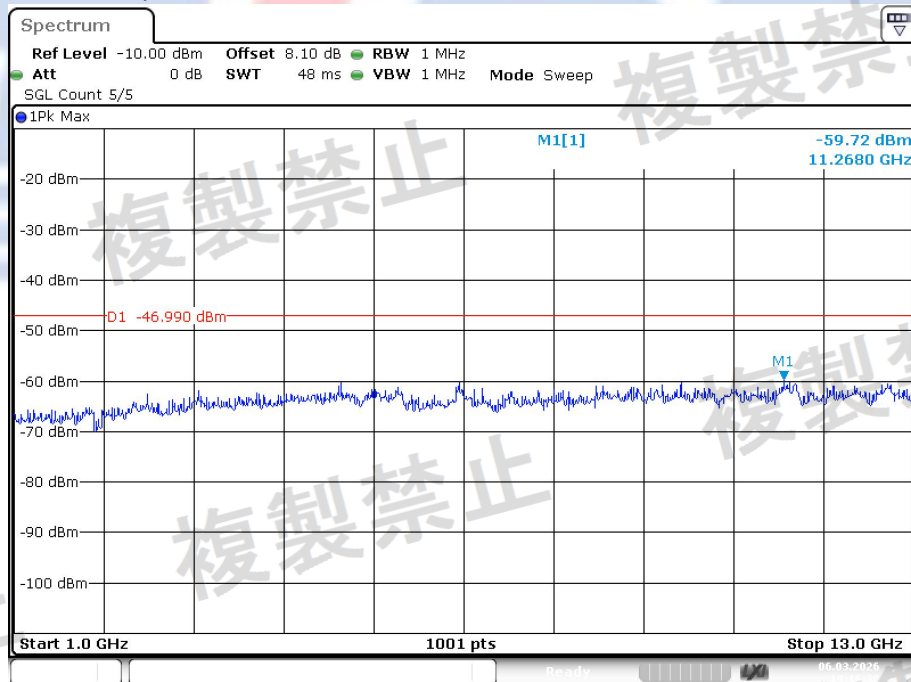
Rx. Spurious NVNT BLE 1M 2440MHz Ant1 @ 1000MHz-13000MHz



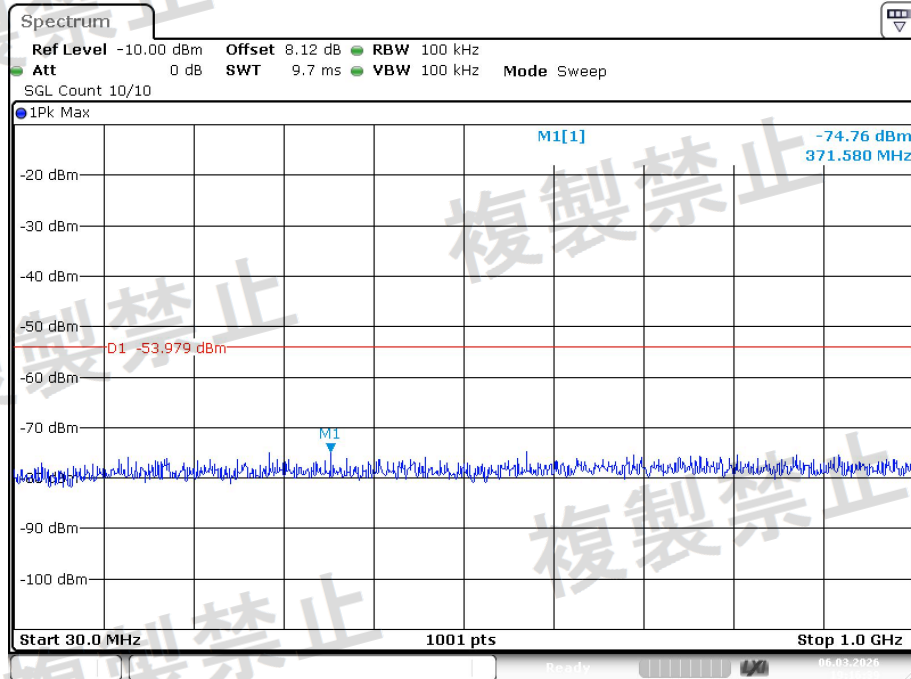
Rx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 30MHz-1000MHz



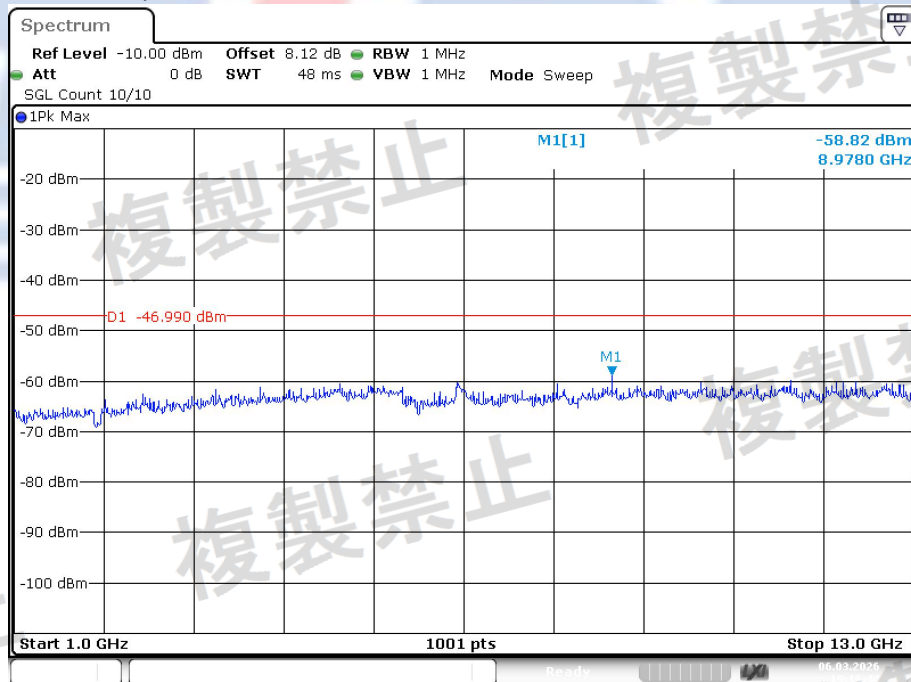
Rx. Spurious NVNT BLE 1M 2480MHz Ant1 @ 1000MHz-13000MHz



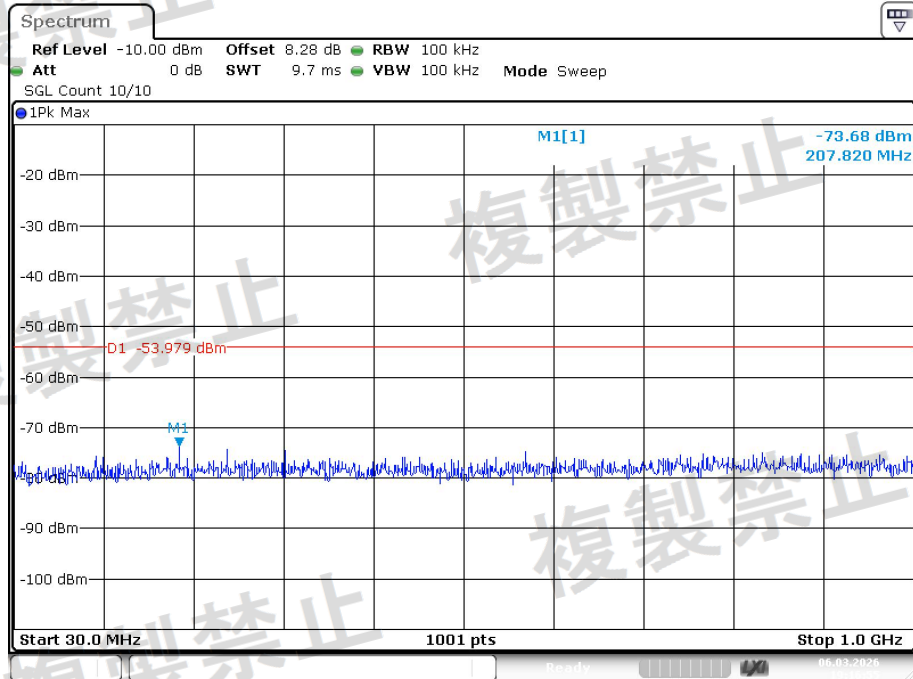
Rx. Spurious NVNT BLE 2M 2402MHz Ant1 @ 30MHz-1000MHz



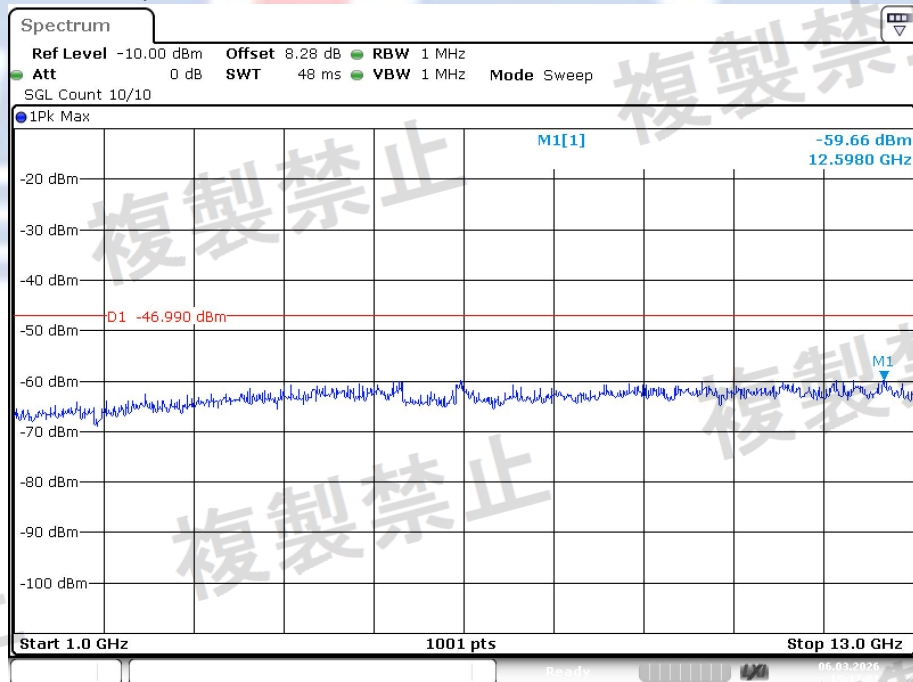
Rx. Spurious NVNT BLE 2M 2402MHz Ant1 @ 1000MHz-13000MHz



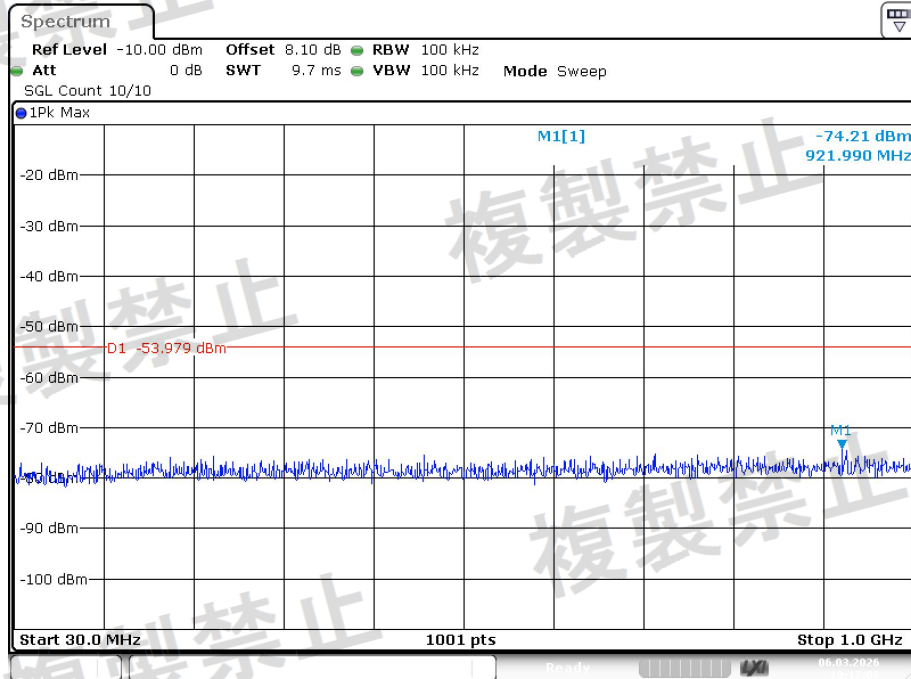
Rx. Spurious NVNT BLE 2M 2440MHz Ant1 @ 30MHz-1000MHz



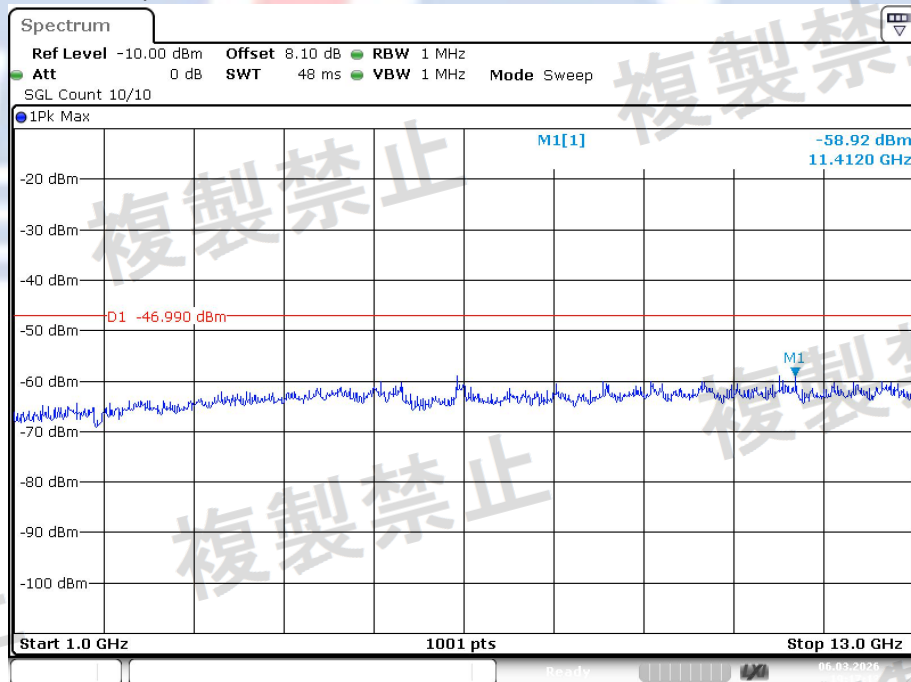
Rx. Spurious NVNT BLE 2M 2440MHz Ant1 @ 1000MHz-13000MHz



Rx. Spurious NVNT BLE 2M 2480MHz Ant1 @ 30MHz-1000MHz



Rx. Spurious NVNT BLE 2M 2480MHz Ant1 @ 1000MHz-13000MHz



9. Equivalent Isotropic Radiated Power

9.1. Test Equipment

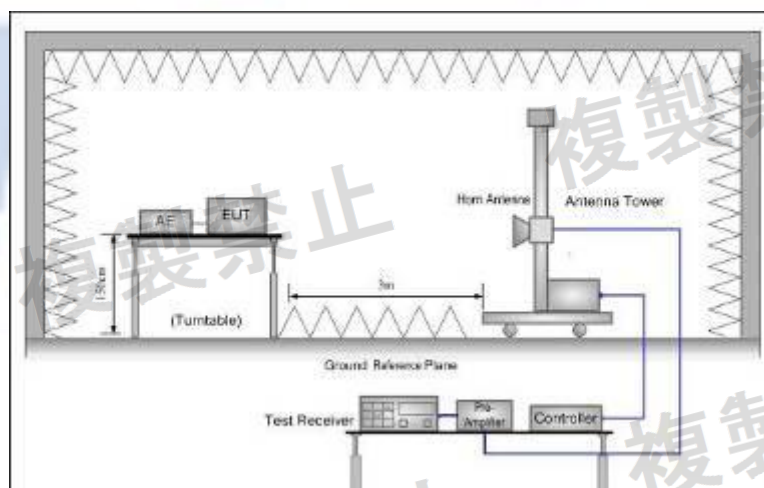
Item	Type	Manufacturer	Model No.	Serial No.	Last Calibration	Due Calibration
1	Spectrum analyzer	Agilent	N9020A	MY54488989	2025/11/10	2026/11/09
2	Spectrum analyzer	ROHDE&SCHWARZ	FSU26	200732	2025/11/10	2026/11/09
3	Attenuator	SCHWARZBECK	DGA 9552N	3161	2025/10/17	2026/10/16
4	Horn Antenna	SCHWARZBECK	BBHA 9120 D	03298	2025/11/18	2026/11/17

Note: The test equipment is calibrated by Huajue Medical Testing and Metrology (Shenzhen) Co., Ltd. and GRG METROLOGY & TEST Calibration standard: Article 24-2, Paragraph 4 of the Radio Act, method c

9.2. Limit

EIRP: 12.14dBm/MHz

9.3. Block diagram of test setup



9.4. Test Procedure

Step 1

Set the test equipment at test frequency, and in continuous transmitting mode or intermittent burst mode (constant frequency and constant burst time). Stop the spread.

Step 2

Set the height and direction of test equipment and measurement antenna approximately facing each other.

Step 3

In the frequency derived in D), change the height of the measurement antenna from the ground by $\pm 50\text{cm}$ with a central focus on the antenna of test equipment. Search the location that the power is maximum by adjusting the direction of measurement antenna. Set the indicator of spectrum analyzer at this point as "E".

Step 4

Remove the test equipment from the turntable, set the opening of substitution antenna at the same location as the opening of the test equipment, and receive by outputting radio wave of the same frequency from the standard signal generator for substitution.

Step 5

Adjust at the maximum power point, turning the substitution antenna.

Step 6

Change the height of the measurement antenna from the ground by $\pm 50\text{cm}$ with a central focus on the substitution antenna, and adjust the direction of measurement antenna to the location that the received power is maximum.

Step 7

Adjust output of standard signal generator and record the power P_s that is equal to "E". Or record P_s by counting backward from the difference with "E" as the close value to "E" (within $\pm 1\text{dB}$).

Step 8

EIRP is derived from the following calculating formula:

$$\text{EIRP} = G_s - L_f + P_s$$

G_s ; Absolute gain of substitution antenna (dBi).

L_f ; Loss of electric supply line between standard signal generator and substitution antenna (dB).

P_s ; Output of standard signal generator (dBm).

Step 9

Spectrum Analyzer as below:

Centre Frequency: The centre frequency of the channel under test.

Frequency Span: 0Hz

Resolution BW: 1MHz

Video BW: 3MHz

Detector: Peak.

Sweep mode: Continuous sweep

9.5. Test result

Condition	Mode	Frequency (MHz)	Antenna	Antenna Power (dBm)	Gain (dBi)	EIRP Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1M	2402	Ant1	1.11	-0.43	0.68	12.14	Pass
NVNT	BLE 1M	2440	Ant1	1.42	-0.43	0.99	12.14	Pass
NVNT	BLE 1M	2480	Ant1	0.61	-0.43	0.18	12.14	Pass
NVNT	BLE 2M	2402	Ant1	0.73	-0.43	0.30	12.14	Pass
NVNT	BLE 2M	2440	Ant1	1.13	-0.43	0.70	12.14	Pass
NVNT	BLE 2M	2480	Ant1	0.41	-0.43	-0.02	12.14	Pass

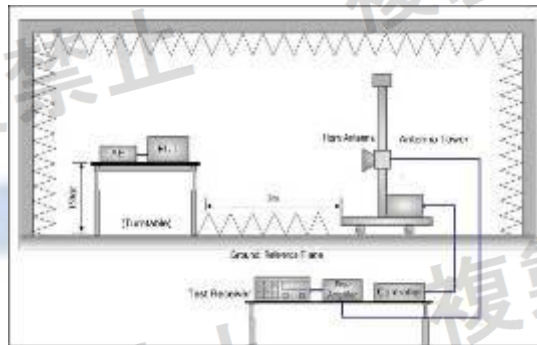
10.3dB Beam Bandwidth

10.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Calibration	Due Calibration
1	Spectrum analyzer	Agilent	N9020A	MY54488989	2025/11/10	2026/11/09
2	Spectrum analyzer	ROHDE&SCHWARZ	FSU26	200732	2025/11/10	2026/11/09
3	Attenuator	SCHWARZBECK	DGA 9552N	3161	2025/10/17	2026/10/16
4	Horn Antenna	SCHWARZBECK	BBHA 9120 D	03298	2025/11/18	2026/11/17

Note: The test equipment is calibrated by Huajue Medical Testing and Metrology (Shenzhen) Co., Ltd. and GRG METROLOGY & TEST Calibration standard: Article 24-2, Paragraph 4 of the Radio Act, method c

10.2. Block diagram of test setup



10.3. Test Procedure

Step 1

Set the test equipment at test frequency, and transmit.

Step 2

Stop the modulation, and make it “continuous transmission of unmodulated wave” in principle. If it is impossible, make it “intermittent burst transmission of unmodulated wave”

Step 3

Polarized wave side of measurement antenna is the same using mode as test equipment.

Step 4

Set the height and direction of test equipment and measurement antenna approximately facing each other.

Step 5

Set the spectrum analyzer according to “Spectrum set” and set as reference level and receive.

Step 6

Adjust at the maximum received power point, turning the test equipment horizontally and vertically.

Step 7

Change the height of the measurement antenna from the ground by $\pm 50\text{cm}$ with a central focus on the antenna of test equipment, and search the location that the power is maximum by adjusting the direction of measurement antenna. Set the indicator of spectrum analyzer at this point as “E”.

Step 8

By using EIRP (P_E) that is measured at 9, calculate allowed main beam angle (θ_0) between the horizontal plane and vertical plane of the test equipment as follows.

Allowed main beam angle (θ_0) = $360/A$

θ_0 : Allowed transmitter antenna beamwidth angle in degree of test equipment

P_E : EIRP of test equipment (dBm)

A: A is defined as EIRP divides by the summation of antenna gain 2.14dBi transmitter antenna and average power 10mW (In case of using OFDM, or DS, or FHSS, or DS and complex with FHSS, or OFDM and complex with FHSS, 10mW/MHz. However, in FHSS or DS and complex with FHSS, or OFDM and complex with FHSS, when using the frequency from 2,427MHz to 2,470.75MHz, 3mW/MHz) antenna power. In case the value is lower than 1, set A as 1.

Step 9

Turn the test equipment in horizontal direction, from main beam direction with the beam angle except main beam angle (θ_0) calculated by (step 8), over all surroundings as much as possible. Confirm that received power is decreased more than 3dB from the maximum point value of received power(E).

Step 10

Return the test equipment to position (step 6), incline the test equipment in vertical direction, from main beam direction with the beam angle except main beam angle (θ_0) calculated by (step 8), widely as much as possible (over 90 degrees. However, it is able to according to "6. other condition", too.) Confirm that received power is 3dB lower than the maximum point value of received power (E).

Step 9

Spectrum Analyzer as below:

Centre Frequency: The centre frequency of the channel under test.

Frequency Span: 0Hz

Resolution BW: 1MHz

Video BW: 1KHz

Y-Axis: 5dB/Div

Detector: Peak.

Sweep mode: Continuous sweep

Input level: the amplitude of transmission signal is set around max. line area of mixer.

10.4. Test result

Not applicable (the EIRP less than 12.14dBm).

11. Photos of test setup

12. EUT Photo

Please refer to the photo of attachment

-----END OF REPORT-----

